UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Tacoma, Washington) Project No. 1862-026

ORDER APPROVING, IN PART, FISH PASSAGE PLAN TO ALDER LAKE TRIBUTARIES
(Issued March 24, 1998)

On September 4, 1997, the City of Tacoma, Washington (licensee), filed a plan to maintain fish passage to tributaries of Alder Lake of the Nisqually Hydroelectric Project. The plan was filed pursuant to Article 415 of the project license. 1/ The purpose of the plan is to enhance the Alder Lake fishery through ensuring spawning fish access to breeding habitat in the tributaries of the lake. The Nisqually Hydroelectric Project is located on the Nisqually River in Pierce, Thurston and Lewis Counties, Washington.

LICENSE REQUIREMENTS

License Article 415 requires the licensee to file a plan to maintain fish passage from Alder Lake into its tributaries (including, but not limited to, the Little Nisqually River, East Creek, Catt Creek, and Stahl Creek).

The fish passage maintenance plan shall include, but not be limited to, a description of proposed monitoring activities and fish passage enhancement measures that could be implemented and a schedule for:

(1) monitoring fish passage conditions and implementing any necessary fish passage enhancement measures;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee was required to develop the plan in consultation with the Nisqually Tribe, National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (FWS), and Washington Department of Fish and Wildlife (WDFW); and, file the agency comments with the Commission.

1/ 78 FERC ¶ 62, 170

LICENSEE'S PLAN

The licensee proposes to gather baseline data on the existing condition of the tributaries to Alder Lake by conducting both boat and walking surveys. The migrational barrier analysis proposed would evaluate all obstructions of the streams that completely or partially block upstream fish movement. After the obstructions and obstacles are identified and clarified the licensee would consult with the agencies to determine the appropriate fish passage enhancements. The licensee would then file the fish passage enhancements proposed with the Commission for approval.

The licensee would conduct the survey the first fall (1998) after approval of the plan. The licensee proposes to complete and submit the fish passage enhancements plan by December 1 the following year. Any modifications made to the tributary streams would be completed within 5 years of the Commission approval of the fish passage enhancement plan. The licensee would then conduct annual surveys of each stream to ensure the modifications are still functional. The licensee would submit annual reports to the agencies by June 1 the following year and to the Commission by September 1 after the resource agencies and the Nisqually Tribe have reviewed the report.

RESOURCE AGENCY CONSULTATION

The licensee on July 2, 1997, requested comments on the draft fish passage plan from WDFW, FWS, NMFS, the Nisqually Tribe, and others. No agency commented on the proposed fish passage plan.

DISCUSSION AND CONCLUSION

The licensee's plan to assess, improve, and maintain the tributary streams of Alder Lake for fish passage described above partially satisfies the requirements of Article 415. The licensee proposes to conduct a baseline survey prior to developing the fish passage enhancement plan. The results of baseline survey would be filed with the Commission by December 1, 1999, and would include a discussion of agency and tribal comments and any recommendations that may include further baseline monitoring. The licensee would complete the fish passage enhancement program within five years of Commission approval of the fish passage enhancement plan. The post enhancement annual monitoring would ensure that the streams remain accessible to fish.

Implementation of licensee's plan to assess, improve and maintain fish passage to the tributary streams of Alder Lake partially fulfills the requirements of Article 415 of the license. The licensee's plan should contribute towards the

enhancement of the recreational fishery in Alder Lake and should be approved.

The Director orders:

(A) The licensee's plan, filed September 4, 1997, to assess, improve and maintain fish passage to the tributary streams of Alder Lake of the Nisqually Hydroelectric Project, as required by Article 415, is approved.

(B) This order constitutes final agency action. Request for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant tc 18 CFR § 385.713.

Carol Sampson
Director
Office of Hydropcwer Licensing

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

U.S. OFFICIAL MAIL
U.S. POSTAGE
$0.32
MAR 25 '98
PB METER

P-1862
DIRECTOR
WASHINGTON DEPT. OF FISH & WILDLIFE
600 CAPITOL WAY NORTH
OLYMPIA, WA 98504-1091

D. Mulle

101827

82 FERC ¶ 62,123

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Tacoma, Washington) Project No. 1862-025

ORDER APPROVING AND MODIFYING FISH HABITAT ENHANCEMENT PLAN

(Issued February 24, 1998)

On September 4, 1997, the City of Tacoma, Washington (licensee), filed a plan to construct artificial reefs in Alder Lake of the Nisqually Hydroelectric Project. The plan was filed pursuant to Article 414 of the project license. 1/ The purpose of the plan is to enhance habitat for black crappie and largemouth bass in Alder Lake through construction of artificial reefs and to evaluate the effectiveness of these reefs. The Nisqually Hydroelectric Project is located on the Nisqually River in Pierce, Thurston and Lewis Counties, Washington.

LICENSE REQUIREMENTS

License Article 414 requires the licensee to file, for Commission approval, a plan to construct artificial reefs in Alder Lake to enhance habitat for black crappie and largemouth bass. Article 414 requires that the plan include a description of the materials and methods to be used and a map showing the proposed locations of reef placement. A schedule is required for: implementation of the reef construction program within 2 years of license issuance and an evaluation of the program's effectiveness; consultation with the Nisqually Tribe (Tribe), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (FWS), and Washington Department of Fish and Wildlife (WDFW); and, filing the results of the artificial reef evaluation and any agency and Tribe comments with the Commission.

Article 414 requires that the plan be prepared after consultation with the Tribe, NMFS, FWS, and the WDFW. The licensee is required to include documentation and copies of comments received during consultation on the plan. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

LICENSEE'S PLAN

The licensee proposes to install four artificial reefs in Alder Lake; three reefs would be installed in the north arm of the reservoir and the fourth reef would be place near the state

1/ FERC ¶ 62, 170

alds → Leigh
David 2 copies to t. folle
Signed

boat launch in the south central section of the reservoir. Specific site locations for the reefs would be determined from SCUBA surveys and in cooperation with the resource agencies and the Tribe. Each reef would consist of 100 units placed in contiguous, linear groups. Individual units would be constructed of bundles of hardwood trimmings and bound to a 2 foot by 4 foot steel frame made of ½ inch welded rebar and anchored with concrete weights. The artificial reefs would be installed at a depth to allow for a 10 foot submergence during the winter drawdown which is normally at elevation 1150 feet. The licensee proposes to commence reef installation during the first reservoir drawdown after completion of the survey to determine specific placement sites. One reef would be installed each year over a period of 4 years until all four reefs are in place.

To assess the effectiveness of the reefs the licensee proposes to conduct SCUBA surveys. Species use, abundance, and condition of the reefs would be monitored beginning 1 year after installation of each reef. Species use and abundance would be compared between the artificial reefs and two control sites. The control sites would include one site with natural habitat structure and one site devoid of structure. The SCUBA surveys would be conducted in September and mid-winter, water clarity permitting, for the first 5 years of the reef placement program. After 5 years the need to continue the evaluation program would be assessed.

The licensee proposes to prepare annual reports following installation of each of the four reefs and after completion of the SCUBA surveys of the fish use and condition of the reefs. The reports would be submitted to the resource agencies and the Tribe by March 1 for review and comment. The licensee would address any comments received and would file with the Commission by June 1 following each study year the annual reports along with any agency and Tribe comments and responses to these comments.

RESOURCE AGENCY CONSULTATION

The licensee on July 2, 1997, requested comments on the draft artificial reef installation plan from WDFW, FWS, NMFS, the Tribe, and others. The WDFW responded by letter dated August 5, 1997. The WDFW recommended that: (1) the reefs be submerged by a minimum depth of 10 feet or about 1140 feet elevation during winter drawdown; (2) reef placement should be spread out to achieve the most benefit for the fish resource-sites should be determined by SCUBA surveys; (3) two controls, one area barren of structure and one with natural structure be used during the evaluations; and, (4) SCUBA assessments of the reefs be conducted in September and mid-winter for the first 5 years of the program. The licensee's plan described above incorporates these recommendations of WDFW.

DISCUSSION AND CONCLUSION

The licensee's plan to construct artificial reefs in Alder Lake and to assess the effectiveness of these reefs as fish habitat described above satisfies the requirements of Article 414. The licensee would install during the winter drawdowns four artificial reefs, one each year for 4 years until all installed. The licensee would complete a report each year after a reef is installed and would file this report with the Commission by June 1 following the installation. The licensee should install the first reef during the winter of 1998/1999 and file with the Commission a report to include the specific location, date of installation, size and water depth of the reef by June 1, 1999. The report should include a discussion of any agency and tribe comments on the reef placement.

The licensee proposes to conduct a survey to assess fish use, abundance and condition of each reef 1 year after installation. After 5 years the need to continue the survey would be evaluated. The licensee proposes to prepare a report on the evaluation of fish use of each reef and would file this report with the Commission by June 1 following the evaluation. The first report should be filed with the Commission by June 1, 2000. The report should include a discussion of any agency and tribe comments on the survey results.

Implementation of licensee's plan to construct artificial reefs in Alder Lake and to evaluate the effectiveness of these reefs fulfills the requirements of Article 414 of the license. The licensee's artificial reef installation plan should contribute towards the enhancement of the black crappie and largemouth bass fishery in Alder Lake, and as modified, should be approved.

The Director orders:

(A) The licensee's plan, filed September 4, 1997, for the installation of artificial reefs in Alder Lake of the Nisqually Hydroelectric Project, as required by Article 414, and as modified by paragraphs B and C, is approved.

(B) The licensee shall install the first of four artificial reefs in Alder Lake during the winter of 1998/1999 and shall file with the Commission by June 1,1999, a report on the installation that includes specific location on a map, date of installation, size, water depth, and a discussion of any agency and tribe comments on the report. The licensee shall file reports with the Commission on the installation of each of the other proposed reefs by June 1 following the installation. These reports shall include a discussion of any agency and tribe comments.

(C) The licensee shall conduct annual assessments of the effectiveness of the artificial reefs 1 year after installation of each reef for a period of at least 5 years. The first annual report shall be filed with the Commission by June 1, 2000, and shall include data on species use, abundance, condition of the reef, any recommendations for modifications to the reef placement program, and a discussion of any agency and tribe comments. The fifth year evaluation report shall include a recommendation for the need to continue the fish use surveys.

(D) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 CFR § 385.713.

Joseph D. Morgan

Carol L. Sampson
Director
Office of Hydropower Licensing

DISCUSSION AND CONCLUSION

The licensee's plan to construct artificial reefs in Alder Lake and to assess the effectiveness of these reefs as fish habitat described above satisfies the requirements of Article 414. The licensee would install during the winter drawdowns four artificial reefs, one each year for 4 years until all installed. The licensee would complete a report each year after a reef is installed and would file this report with the Commission by June 1 following the installation. The licensee should install the first reef during the winter of 1998/1999 and file with the Commission a report to include the specific location, date of installation, size and water depth of the reef by June 1, 1999. The report should include a discussion of any agency and tribe comments on the reef placement.

The licensee proposes to conduct a survey to assess fish use, abundance and condition of each reef 1 year after installation. After 5 years the need to continue the survey would be evaluated. The licensee proposes to prepare a report on the evaluation of fish use of each reef and would file this report with the Commission by June 1 following the evaluation. The first report should be filed with the Commission by June 1, 2000. The report should include a discussion of any agency and tribe comments on the survey results.

Implementation of licensee's plan to construct artificial reefs in Alder Lake and to evaluate the effectiveness of these reefs fulfills the requirements of Article 414 of the license. The licensee's artificial reef installation plan should contribute towards the enhancement of the black crappie and largemouth bass fishery in Alder Lake, and as modified, should be approved.

The Director orders:

(A) The licensee's plan, filed September 4, 1997, for the installation of artificial reefs in Alder Lake of the Nisqually Hydroelectric Project, as required by Article 414, and as modified by paragraphs B and C, is approved.

(B) The licensee shall install the first of four artificial reefs in Alder Lake during the winter of 1998/1999 and shall file with the Commission by June 1,1999, a report on the installation that includes specific location on a map, date of installation, size, water depth, and a discussion of any agency and tribe comments on the report. The licensee shall file reports with the Commission on the installation of each of the other proposed reefs by June 1 following the installation. These reports shall include a discussion of any agency and tribe comments.

(C) The licensee shall conduct annual assessments of the effectiveness of the artificial reefs 1 year after installation of each reef for a period of at least 5 years. The first annual report shall be filed with the Commission by June 1, 2000, and shall include data on species use, abundance, condition of the reef, any recommendations for modifications to the reef placement program, and a discussion of any agency and tribe comments. The fifth year evaluation report shall include a recommendation for the need to continue the fish use surveys.

(D) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 CFR § 385.713.

Joseph D. Mozya

Carol L. Sampson
Director
Office of Hydropower Licensing

82 FERC ¶ 62,123

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Tacoma, Washington) Project No. 1862-025

ORDER APPROVING AND MODIFYING FISH HABITAT ENHANCEMENT PLAN

(Issued February 24, 1998)

On September 4, 1997, the City of Tacoma, Washington (licensee), filed a plan to construct artificial reefs in Alder Lake of the Nisqually Hydroelectric Project. The plan was filed pursuant to Article 414 of the project license. 1/ The purpose of the plan is to enhance habitat for black crappie and largemouth bass in Alder Lake through construction of artificial reefs and to evaluate the effectiveness of these reefs. The Nisqually Hydroelectric Project is located on the Nisqually River in Pierce, Thurston and Lewis Counties, Washington.

LICENSE REQUIREMENTS

License Article 414 requires the licensee to file, for Commission approval, a plan to construct artificial reefs in Alder Lake to enhance habitat for black crappie and largemouth bass. Article 414 requires that the plan include a description of the materials and methods to be used and a map showing the proposed locations of reef placement. A schedule is required for: implementation of the reef construction program within 2 years of license issuance and an evaluation of the program's effectiveness; consultation with the Nisqually Tribe (Tribe), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (FWS), and Washington Department of Fish and Wildlife (WDFW); and, filing the results of the artificial reef evaluation and any agency and Tribe comments with the Commission.

Article 414 requires that the plan be prepared after consultation with the Tribe, NMFS, FWS, and the WDFW. The licensee is required to include documentation and copies of comments received during consultation on the plan. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

LICENSEE'S PLAN

The licensee proposes to install four artificial reefs in Alder Lake; three reefs would be installed in the north arm of the reservoir and the fourth reef would be place near the state

1/ FERC ¶ 62, 170

boat launch in the south central section of the reservoir. Specific site locations for the reefs would be determined from SCUBA surveys and in cooperation with the resource agencies and the Tribe. Each reef would consist of 100 units placed in contiguous, linear groups. Individual units would be constructed of bundles of hardwood trimmings and bound to a 2 foot by 4 foot steel frame made of ½ inch welded rebar and anchored with concrete weights. The artificial reefs would be installed at a depth to allow for a 10 foot submergence during the winter drawdown which is normally at elevation 1150 feet. The licensee proposes to commence reef installation during the first reservoir drawdown after completion of the survey to determine specific placement sites. One reef would be installed each year over a period of 4 years until all four reefs are in place.

To assess the effectiveness of the reefs the licensee proposes to conduct SCUBA surveys. Species use, abundance, and condition of the reefs would be monitored beginning 1 year after installation of each reef. Species use and abundance would be compared between the artificial reefs and two control sites. The control sites would include one site with natural habitat structure and one site devoid of structure. The SCUBA surveys would be conducted in September and mid-winter, water clarity permitting, for the first 5 years of the reef placement program. After 5 years the need to continue the evaluation program would be assessed.

The licensee proposes to prepare annual reports following installation of each of the four reefs and after completion of the SCUBA surveys of the fish use and condition of the reefs. The reports would be submitted to the resource agencies and the Tribe by March 1 for review and comment. The licensee would address any comments received and would file with the Commission by June 1 following each study year the annual reports along with any agency and Tribe comments and responses to these comments.

RESOURCE AGENCY CONSULTATION

The licensee on July 2, 1997, requested comments on the draft artificial reef installation plan from WDFW, FWS, NMFS, the Tribe, and others. The WDFW responded by letter dated August 5, 1997. The WDFW recommended that: (1) the reefs be submerged by a minimum depth of 10 feet or about 1140 feet elevation during winter drawdown; (2) reef placement should be spread out to achieve the most benefit for the fish resource-sites should be determined by SCUBA surveys; (3) two controls, one area barren of structure and one with natural structure be used during the evaluations; and, (4) SCUBA assessments of the reefs be conducted in September and mid-winter for the first 5 years of the program. The licensee's plan described above incorporates these recommendations of WDFW.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Tacoma, Washington) Project No. 1862-024

ORDER APPROVING AND MODIFYING RESERVOIR FISHERY ENHANCEMENT PLAN

(Issued February 24, 1998)

On September 4, 1997, the City of Tacoma, Washington (licensee), filed a plan to annually stock kokanee fry in Alder Lake of the Nisqually Hydroelectric Project. The plan was filed pursuant to Article 413 of the project license. 1/ The purpose of the plan is to enhance the Alder Lake fishery through stocking and to evaluate the effectiveness of the stocking program. The Nisqually Hydroelectric Project is located on the Nisqually River in Pierce, Thurston and Lewis Counties, Washington.

LICENSE REQUIREMENTS

License Article 413 requires the licensee to file, for Commission approval, a plan to annually stock 500,000 kokanee fry into Alder Lake to enhance the fishery. Article 413 requires that the plan include a schedule for: implementation of the stocking program within 2 years of license issuance and an evaluation of the program's effectiveness; consultation with the Nisqually Tribe, National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (FWS), and Washington Department of Fish and Wildlife (WDFW); and, filing results of the stocking evaluation and any agency and Nisqually Tribe comments with the Commission.

Article 413 requires that the plan be prepared after consultation with the Nisqually Tribe, NMFS, FWS, and the WDFW. The licensee is required to include documentation of consultation and copies of comments received during consultation on the plan. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

LICENSEE'S PLAN

Prior to implementation of the kokanee stocking program in Alder Lake, the licensee proposes to gather baseline data on the existing kokanee population. The licensee also proposes to conduct spawning ground surveys on a number of tributaries to Alder Lake. To collect this pre-stocking data the licensee would use creel surveys and hydroacoustics for Alder Lake and would use standard WDFW methods for conducting the tributary surveys to

1/ 78 FERC ¶ 62, 170

Old Leigh Vigue

evaluate potential escapement and spawning ground use. The licensee proposes to complete a baseline evaluation report by December 31 of the sampling year and file this report with the Commission by April 1 of the following year after the resource agencies and the Nisqually Tribe have reviewed and commented on the report.

The number of kokanee fry stocked, up to 500,000, would be determined in consultation with the resource agencies and tribe and would be based on the population and abundance data collected during the pre-stocking evaluations. Subsequent to the initial stocking the number of kokanee stocked would be based in part on annual evaluations of the stocking program by creel surveys, stream surveys, marking and hydroacoustic monitoring. The annual evaluations would continue until the resource agencies agree to discontinue further monitoring.

The licensee would obtain the kokanee fry from a private hatchery and these fry would be certified disease-free by the hatchery and the WDFW. The stocked fry would either be otolith marked or marked by some other technique approved by WDFW to identify hatchery origin fish. The kokanee fry would be released into the limnetic zone of Alder Lake and the specific stocking locations and timing would depend upon the distribution of kokanee and the availability and abundance of zooplankton. Zooplankton abundance and species availability would be monitored twice per month from April through August during the first 5 years of the stocking program. The licensee proposes to complete an annual evaluation report on the effectiveness of the stocking program by December 31 of the sampling year and file this report with the Commission by April 1 of the following year after the resource agencies and the Nisqually Tribe have reviewed and commented on the report.

RESOURCE AGENCY CONSULTATION

The licensee on July 2, 1997, requested comments on the draft kokanee fry stocking plan from WDFW, FWS, NMFS, the Nisqually Tribe, and others. The WDFW responded by letter dated August 5, 1997. The WDFW recommended that in addition to conducting spawning ground surveys in East and Stahl Creeks surveys should be conducted in Little Nisqually River, Nisqually River, Reese, Mineral, Catt, and Big Creeks. The licensee's plan includes these streams for tributary spawning ground surveys. The WDFW also recommends the use of quantitative methods in assessing spawning ground escapements and that all hatchery fry stocked in Alder Lake be otolith-marked. The licensee's plan provides for the use of standard WDFW methods in conducting stream surveys and the use of otolith-marking or some other marking technique acceptable to the WDFW.

DISCUSSION AND CONCLUSION

The licensee's plan to stock kokanee fry in Alder Lake and to assess the effectiveness of the stocking program described above satisfies the requirements of Article 413. The licensee proposes to conduct a baseline monitoring program prior to stocking kokanee fry in Alder Lake and prepare a report. The baseline report should be filed with the Commission by April 1, 1999, and should include a discussion of agency and tribe comments and any recommendations that may include further baseline monitoring. If no further baseline monitoring is proposed, the licensee should commence the kokanee fry stocking program by June 1, 1999. All stocked fry should be certified disease free and marked by a method acceptable to the resource agencies and the tribe to aid in the proposed annual evaluations of the stocking program.

The licensee proposes to prepare reports on the annual evaluations of the stocking program. The first annual evaluation report on the success of the stocking program that includes number of fry stocked(up to 500,000), dates of release, and marking technique should be filed with the Commission by April 1, 2000, provided that baseline studies are not extended beyond 1 year. The reports should include a discussion of any agency and tribe comments on the evaluations.

Implementation of licensee's plan to stock kokanee fry in Alder Lake and to evaluate the success of the stocking program fulfills the requirements of Article 413 of the license. The licensee's kokanee fry stocking plan should contribute towards the enhancement of the recreational fishery in Alder Lake, and as modified, should be approved.

The Director orders:

(A) The licensee's plan, filed September 4, 1997, for stocking kokanee fry in Alder Lake of the Nisqually Hydroelectric Project, as required by Article 413, and as modified by paragraphs B and C, is approved.

(B) The licensee shall file with the Commission by April 1, 1999, a report on the baseline monitoring data collected from Alder Lake and the spawning tributaries. The report shall include a discussion of any agency comments on the report and recommendations for further monitoring or changes in the monitoring program. If no further baseline monitoring is proposed, the licensee shall commence the kokanee stocking program for Alder Lake as described herein, by June 1, 1999.

(C) The licensee shall file with the Commission by April 1, 2000, the first annual evaluation report on the success of the kokanee stocking program that includes a discussion of any agency

comments on the report and recommendations for any changes in the evaluation program, described herein. The annual report shall include the number of fry stocked(up to 500,000), dates of release, and marking technique. Subsequent annual reports shall be filed with the Commission by April 1 following each study year.

(D) This order constitutes final agency action. Request for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 CFR § 385.713.

Joseph A Mizgan

Carol Sampson
Director
Office of Hydropower Licensing

81 FERC ¶ 62,022

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Tacoma, Washington)
Department of Public Utilities) Project No. 1862-036

ORDER APPROVING LAGRANDE CANYON WHITEWATER BOATING PLAN
(Issued October 7, 1997)

On September 4, 1997, the City of Tacoma, Washington, Department of Public Utilities (licensee) filed a LaGrande Canyon Whitewater Boating Plan (Plan). The Plan proposes: (1) parking, sanitary facilities, and signage at the river access area near LaGrande Dam; (2) dam releases of 1,000 and 800 cfs for two weekends of whitewater boating per year in the 1.7-mile-long reach of the Nisqually River from LaGrande Dam to the LaGrande powerhouse (LaGrande Canyon); and (3) an annual report to the Commission that evaluates the costs to the licensee and the benefits to whitewater recreationists from providing whitewater boating at the Nisqually Project (Project).

The Project, which includes the Alder and LaGrande developments, is located on the Nisqually River in Pierce, Thurston, and Lewis counties, Washington.

LICENSE REQUIREMENTS

License article 428 requires the licensee to file, for Commission approval, a plan to conduct a three-year evaluation of the potential for whitewater boating in the LaGrande Canyon. 1/ The article indicates that the plan must include provisions for: (1) providing flow releases of 1,000 cfs and 800 cfs during two weekends either in mid to late November or December; (2) informing boaters of the planned release dates, and the difficulty of the whitewater run; (3) restricting access to the Canyon during the dates of whitewater releases to boaters and other test participants; (4) providing sanitary facilities near the put-in area; (5) conducting briefings and providing signage explaining the potential hazards of the whitewater run; (6) providing access to a take out point at the confluence of the Nisqually and Mashel rivers; and (7) filing an annual report that evaluates the results of each year's test and estimates the carrying capacity of the Canyon for whitewater boating; and (8) providing a final report at the end of the third year that includes an estimate of the potential demand for whitewater boating in the Canyon, and the licensee's proposal and cost estimate for maintaining, increasing or decreasing the Project's whitewater releases during the remainder of the license term.

1/ 78 FERC ¶ 62,170 (1997).

David - 2 copies for file BD

The licensee must prepare the plan in consultation with the American Whitewater Affiliation (AWA), Washington State Parks and Recreation Commission, Washington State University's Pack Forest, Pierce County Fire Protection District, Nisqually River Council, National Park Service, Nisqually Tribe, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Washington Department of Fish and Wildlife (WDFW).

LICENSEE'S PLAN

The licensee proposes to provide whitewater releases during: (1) the weekend before Thanksgiving; and (2) the weekend two weeks before Christmas week. On the Saturday of each whitewater weekend, the licensee would release 1,000 cfs for six hours beginning at 10:00 in the morning. On Sundays during whitewater weekends, the licensee would provide a six-hour release of 800 cfs beginning at 10:00 a.m.

The licensee would provide information concerning the whitewater weekends, which includes warnings about the hazards of accessing and boating the canyon, to: all recreational organizations that request it; the Corps of Engineer's Web site; and the City of Tacoma's Community and Media Services Office.

The licensee would not solicit applications from whitewater boaters nor establish a cap on the number of boaters allowed to participate. The licensee and the AWA agree that, initially, all whitewater recreationists who show up should be permitted to make the run provided they sign personal liability waivers. However, based on the reactions of boaters who use the reach, the licensee and the recreation organizations could decide that there is a need to limit the number of participants.

The licensee would provide signage and temporary sanitary facilities at the LaGrande dam on boating days. Since there is limited parking space at the dam, the licensee would designate certain areas there for short-term unloading only. Boaters, therefore, would be required to arrange for someone to transport their vehicles to off-site parking areas.

The University of Washington has informed the licensee that it will not permit a site within its Pack Forest property to serve as a take out area for LaGrande Canyon boaters. The licensee indicates that private whitewater organizations currently are negotiating to acquire a suitable take out location for the LaGrande Canyon whitewater run. Since this issue has not yet been resolved, the licensee's first whitewater evaluation report should indicate the location of and pertinent information about the take out area.

The licensee would request each boater to comment on the difficulty of the reach, hazards encountered, the quality of the whitewater run, and the need to limit the number of boaters allowed to participate. The licensee's annual report would provide a summary and analysis of these responses.

The licensee would provide a preliminary report to the aforementioned agencies for comment; subsequently, the licensee would provide the Commission with its revised report together with the agency comments on the preliminary report, and its responses to these comments.

The third annual report (final report) would include the licensee's: (1) estimate of the potential demand for whitewater boating in the Canyon; (2) recommendations for maintaining, increasing or decreasing the number of annual whitewater release days; and (3) cost estimates of providing whitewater recreation in the Canyon during the remainder of the license term.

RESOURCE AGENCY CONSULTATION

The licensee provided its draft Plan to the Tribe, agencies, and organizations listed above. The WDFW indicated that informal take out points should be discouraged. The agency recommended that a proposed state park could provide take out facilities for LaGrande Canyon whitewater boaters.

The AWA suggested several plan revisions, almost all of which were accepted by the licensee.

DISCUSSION AND CONCLUSIONS

The licensee's three-year Plan calls for appropriate measures and controlled dam releases to provide two weekends of whitewater boating each year in LaGrande Canyon during the November 15-December 30 period, as required by article 428. Moreover, the plan includes the preparation and filing of an annual report for 3 years that: (1) would evaluate the results of the tests; and (2) would estimate the carrying capacity of the Canyon for whitewater boating. The licensee's Plan is supported by the AWA.

Based on the analysis presented above, staff concludes that the licensee's proposed Plan fulfills the requirements of article 428 of the project license. The Plan, therefore, should be approved.

The Director orders:

(A) The licensee's LaGrande Canyon Whitewater Boating Plan, filed September 4, 1997, as required by article 428, is approved.

(B) The initial annual report for the 3 year whitewater monitoring period shall be filed with the Commission on or by December 30, 1998. Subsequent annual reports shall be filed by December 30 of each year.

(C) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 CFR § 385.713.

Kevin P. Madden
Acting Director
Office of Hydropower Licensing

FEDERAL ENERGY REGULATORY COMMISSION

ROUTING CODE _____

WASHINGTON, D.C. 20426

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

WASHINGTON MAR 24 '97 DC

U.S. OFFICIAL MAIL PENALTY FOR PRIVATE USE $300 PB METER 730112 ≈0.78≈ U.S. POSTAGE

David Mudd, Hab

P-1862 101827
DIRECTOR
WASHINGTON DEPT. OF FISH & WILDLIFE
600 CAPITOL WAY NORTH

OLYMPIA, WA 98501-1091

Brett,
I'd like 2 copies for mitigation files
DM

- Done -
BD

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City of Tacoma, Washington) Project No. 1862-009

ORDER ISSUING NEW LICENSE
(Major Project)

MAR 07 1997

On December 26, 1991, the City of Tacoma, Washington (Tacoma), filed an application for a new license under Part I of the Federal Power Act (FPA) to continue to operate and maintain the 115-megawatt (MW) Nisqually Hydroelectric Project No. 1862, located on the Nisqually River, in Pierce, Thurston, and Lewis Counties, Washington. The project is partially located on lands of the Mount Baker-Snoqualmie National Forest. The original license was issued on November 15, 1944, for a 50 year term commencing January 1, 1944. 1/ The license term expired December 31, 1993. The project has been operating under annual licenses since that time.

BACKGROUND

Public notice of Tacoma's new license application was issued. Timely motions to intervene 2/ were filed by the U.S. Department of Interior (Interior), the National Marine Fisheries Service (NMFS), the Nisqually Indian Tribe (Nisqually Tribe), the Washington State Parks and Recreation Commission (WSPRC), the Washington Department of Fisheries (Washington Fisheries), American Rivers, the Federation of Fly Fishers, the Northwest Rivers Council, the American Whitewater Affiliation (AWA), and

1/ The LaGrande development was completed by the City of Tacoma in 1912. The Commission authorized the issuance of a license to the City of Tacoma, Washington (Tacoma), on October 14, 1941 (2 F.P.C. 1052) for the Nisqually Project, which would consist of the existing LaGrande development and the unconstructed Alder development. The Commission issued the original license instrument on November 15, 1944 (unpublished order). The order authorizing issuance of a license found that the Nisqually Project was located on lands of the United States. Because the Nisqually Project is located on federal lands, it is required to be licensed pursuant to Section 23(b)(1) of the FPA, 16 U.S.C. § 817(b)(1).

2/ Because the interventions were timely and unopposed, they were granted automatically under Rule 214(c)(1) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(c)(1) (1996).

the Mountaineers (American Rivers, et al.). The comments and recommendations of all participants have been fully considered in determining whether, or under what conditions, to issue this license.

On March 1, 1990, NMFS, Washington Fisheries, and the Washington Department of Wildlife (Washington Wildlife) filed a joint motion to consolidate the Nisqually Hydroelectric Project relicense proceedings with the original licensing proceeding for the Yelm Hydroelectric Project (FERC Project No. 10703). On August 27, 1992, American Rivers, et al., filed a similar motion for consolidating these proceedings. These parties argued that consolidating the proceedings was necessary to comprehensively evaluate the two projects' cumulative effects on the Nisqually River. On July 23, 1993, the Commission issued an order denying the motions for consolidation. 3/ The Commission stated that it would consider the two projects together and address the cumulative impacts of the projects. Therefore, consolidation was not required.

On March 16, 1992, the Commission issued its environmental assessment (EA) for the Yelm Hydroelectric Project No. 10703. Fish and wildlife agency recommendations for that project, pursuant to FPA Section 10(j) and the Fish and Wildlife Coordination Act, have been filed and evaluated.

A Draft Environmental Impact Statement (DEIS) assessing the impacts of the Nisqually Project and the cumulative impacts of the Nisqually and Yelm Projects was issued in December 1994. Comments were filed by the U.S. Army Corps of Engineers (Corps), Interior, the U.S. Environmental Protection Agency (EPA), Washington Department of Fish and Wildlife (WDFW) 4/, Washington Department of Natural Resources (WDNR), City of Tacoma, Pierce County Washington, Tacoma-Pierce County Chamber of Commerce, Nisqually River Council, Nisqually Tribe, American Rivers, 5/ and 31 individuals. The Commission staff prepared a Final Environmental Impact Statement (FEIS) which was issued in April 1996. The FEIS concludes that continued operation of the

3/ 64 FERC ¶ 61,116.

4/ During 1994, the Washington Department of Fisheries and the Washington Department of Wildlife merged to become the Washington Department of Fish and Wildlife. We use the current agency name throughout this order except when referencing specific documents of the previous agencies.

5/ American Rivers was joined in its comments by Federation of Fly Fishers, Rivers Council of Washington, American Whitewater Affiliation, and the Mountaineers.

Nisqually Project, with the staff's recommendations, would result in minor adverse impacts on the environment which would be largely mitigated and offset by project benefits and that a new license for the Nisqually Project and an original license for the Yelm Project with measures to protect and enhance the environment should be issued. 6/ The Commission staff also prepared a Safety and Design Assessment, which is available in the Commission's public file for this project.

PROJECT DESCRIPTION

The Nisqually Hydroelectric Project consists of the LaGrande development and the Alder development. Each development includes a dam, flowline, powerhouse, and an associated power transmission switchyard. Both switchyards lead to a single transmission system that extends 26.2 miles to the City of Tacoma.

The Alder development includes a 285-foot-high concrete arch dam that impounds Alder Lake, a 7.4-mile-long storage reservoir with a maximum surface area of 3,065 acres and an operating storage capacity of 161,457 acre-feet at elevation 1,207 feet. 7/ Adjacent to the main dam structure is a reinforced concrete spillway channel with a total discharge capacity of 80,000 cubic feet per second (cfs). The Alder powerhouse is at the base of the dam. The powerhouse contains two generating units with 50 MW of total generating capacity. A switchyard abuts the powerhouse on the left bank and two single circuit 115-kilovolt (kV) transmission lines extend about 3 miles to the LaGrande development.

The LaGrande development consists of a 192-foot-high concrete gravity dam impounding LaGrande reservoir. The LaGrande reservoir has a surface area of 45 acres and contains 2,700 acre-feet of total storage at elevation 935 feet. The LaGrande reservoir is situated in a deep, precipitous canyon, extending a distance of 1.5 miles to the base of Alder dam. LaGrande Dam has a large reinforced concrete spillway with an 80,000-cfs capacity. The dam diverts flows into a 6,400-foot-long underground tunnel, which terminates at a steel penstock leading to a manifold structure serving five individual penstocks for each of five generating units in the LaGrande powerhouse. Four of the five generating units date back to 1912 and have a capacity of 6 MW each. The fifth unit was added when the remainder of the project was developed in 1941 and has a generating capacity of 41 MW.

6/ By separate order, I am today issuing an original license for the Yelm Project.

7/ Elevations refer to mean sea level datum unless otherwise stated.

The 1.7-mile-long LaGrande bypassed reach is situated in a deep gorge between LaGrande Dam and Powerhouse. The project transmission line extends 26.2 miles along a 50-foot-wide right-of-way (ROW) to the Cowlitz Substation in the City of Tacoma.

Tacoma maintains about 1,113 acres of project land around Alder and LaGrande reservoirs for project operations and related recreation facilities. Most of Alder Lake's shoreline is contiguous with lands of the Mt. Baker-Snoqualmie National Forest, the WDNR, and Weyerhaeuser Timber Company. About 177 acres of project lands are dedicated to developed recreation. Recreational use at the project is confined to the lands and waters of Alder Lake, which includes about 28 miles of shoreline. Tacoma operates and maintains three recreation facilities on the northern shores of Alder Lake: Alder Lake Park, Sunny Beach Point Day-use Area, and Rocky Point Day-use Area. The WDNR also operates and maintains a campground with a boat launch on the south shoreline of Alder Lake.

A more detailed description of project works is presented in ordering paragraph (B) of this order.

NISQUALLY RIVER PROCEEDINGS

In 1976, the Nisqually Tribe filed a complaint with the Commission regarding the Nisqually Hydroelectric Project's operation and its effects on the Nisqually River's anadromous fishery. In response to this complaint, the Commission instituted formal hearings before an Administrative Law Judge (ALJ), known as the Nisqually River Proceedings (Proceedings), to consider whether the project was having an adverse effect on anadromous fish and, if so, whether changes in the project's operations or other measures were needed.

In 1977, Centralia, owner and operator of the downstream Yelm Hydroelectric Project, was made a party to the Proceedings. The Nisqually River Coordinating Committee (Coordinating Committee), a joint resource agency and utility group, 8/ was formed under the Proceedings to examine instream flow and other issues. The Coordinating Committee ultimately recommended an instream flow regime that was subsequently adopted by the ALJ. 9/

8/ Consisting of Centralia, Tacoma, the Nisqually Tribe, the Washington Departments of Fisheries and Wildlife, and later, National Marine Fisheries Service and the U.S. Fish and Wildlife Service.

9/ Fifth Amended Interim Order Designating Flow Regime, September 6, 1985 (unpublished).

This flow regime is in effect today and, as a result of final settlements between the Nisqually Tribe and Tacoma 10/ and between the Nisqually Tribe and Centralia, 11/ the Nisqually Tribe, Centralia, and Tacoma filed a joint motion to terminate the Proceedings. 12/ On March 25, 1993, Judge Grossman issued the initial decision (Decision) to permanently adopt the flows and terminate the Proceedings. 13/ By direction of the

10/ In 1989, Tacoma and the Nisqually Tribe entered into an agreement in which Tacoma agreed to provide the minimum flow regime in the Yelm project bypassed reach and the mainstem which was developed by the Coordinating Committee, and in exchange, the Nisqually Tribe agreed to support making the minimum flow regime permanent by Commission order. Tacoma further agreed to provide certain operation and maintenance funding for the Nisqually Tribe's Clear Creek Hatchery Facility.

11/ In 1991, Centralia and the Nisqually Tribe entered into an agreement in which Centralia agreed to provide the minimum flow regime developed by the Coordinating Committee in the Yelm project bypassed reach, and in exchange, the Nisqually Tribe agreed to support making the minimum flow regime permanent by Commission order. Centralia also agreed to fund the construction and operation of two separate rearing ponds with a capacity of 1.5 million chinook salmon and 500,000 coho.

12/ The parties filed the settlements with the motion, but stated that the parties to these agreements were not seeking Commission approval of them pursuant to Rule 602, 18 C.F.R. § 385.602.

13/ 62 FERC ¶ 63,032. The Decision adopted the following permanent minimum flow regime:

> (1) The flow in the bypassed section [of the Nisqually River at the Yelm Project] and in the mainstem of the Nisqually River from LaGrande [powerhouse] to the Yelm Project diversion of the Nisqually River shall at all times equal or exceed:
>
> | | Bypass | Mainstem |
> |---|---|---|
> | October 1 - December 15 | 550 cfs | 700 cfs |
> | December 16 - May 31 | 600 cfs | 900 cfs |
> | June 1 - July 31 | 500 cfs | 750 cfs |
> | August 1 - September | 370 cfs | 575 cfs |

(continued...)

Commission, the Decision became effective April 5, 1993. 14/

By letter of April 29, 1993, Tacoma requested clarification of the Decision "to clearly identify that the minimum flow regime commences at the City's LaGrande Powerhouse." 15/ I take this opportunity to clarify that the intent of the Commission is that the minimum flow regime specified for LaGrande and LaGrande dam in the Decision is for that portion of the Nisqually River commencing at the LaGrande powerhouse, not LaGrande dam.

13/(...continued)

> (2) To provide the required flows, Tacoma's releases from LaGrande dam shall be sufficient so that the flow in the mainstem portion of the Nisqually River, measured as the flow reaching the Yelm Project diversion dam, shall at all times equal or exceed the greater of: (a) those flows specified in paragraph (1) above for the bypassed reach, less 120 cfs, plus the lesser of 720 cfs or the calculated natural inflow at the Yelm Project diversion dam; or (b) the flows specified in paragraph (1) above for the mainstem.
>
> (3) The requirement of paragraph (2)(a) may be reduced upon mutual agreement of Tacoma and Centralia in the event that conditions do not permit Centralia to use its full water entitlement, provided, however, that the flow in the mainstem shall never be less than that specified in paragraph (1).
>
> (4) The flows shown in paragraph (1) above for the period June 1 through July 31 shall be extended up to August 15 if in-season steelhead spawning data indicate this is warranted as determined by the NRCC.
>
> (5) For the period October 1 through December 15, Tacoma agrees to provide higher flow in the mainstem if water conditions are good and to maintain such higher flow, up to 900 cfs, after it has been established.
>
> (6) Under adverse water conditions Tacoma may petition the NRCC for modifications in these minimum flow requirements.

14/ 63 FERC ¶ 61,026.

15/ No other comments on the Decision were subsequently filed.

INDIAN TREATY RIGHTS

Interior has asserted treaty rights for the Nisqually and Yakima Tribes. The Nisqually Tribe has asserted treaty rights for itself and states that the Yakima do not in fact have treaty rights in the project area.

The Nisqually Tribe is a present day successor to the Treaty of Medicine Creek, 16/ which reserved to the treaty signatories the right of taking fish in their usual and accustomed fishing areas. 17/ The Nisqually Project is located in the Nisqually Tribe's usual and accustomed fishing area. 18/ In addition, the Nisqually Tribe has established hunting and gathering rights in

16/ See 10 Stat. 1132 (1854); and United States v. Washington, 626 F. Supp. 1405 (W.D. Wash. 1985). The treaty was made between the United States and the Nisqually, Puyallup, Steilacoom, Squwksin, S'Homamish, Steh-chase, T'Peeksin, Squi-aitl, and Sa-heh-wamish tribes and bands of indians. The present-day Nisqually Tribe is the successor of the Nisqually and Steilacoom tribes.

The present-day Squaxin Tribe is the successor to the Squawksin, Steh-chase, T'Peeksin, Squi-aitl, and Sa-heh-wamish tribes. The present-day Puyallup Tribe is the successor to the Puyallup and S'Homamish tribes. The Puyallup Tribe did not intervene in this relicensing proceeding. However, it did intervene in the Nisqually Proceedings, and there stated that the projects could adversely affect its treaty rights.

17/ Article III of the treaty states:

The right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all citizens of the Territory, and of erecting temporary houses for the purpose of curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses on open and unclaimed lands.

See 10 Stat. at p. 1133.

18/ See United States v. Washington, supra, 384 F. Supp. at 367-78 (W.D. Wash. 1974), where the court determined that the Nisqually River System is the usual and accustomed fishing place of the Nisqually.

the vicinity. 19/

The Yakima Tribe is the successor tribe to the signatories to the Treaty with the Yakimas, 20/ which gave the Yakima Tribe the right to fish in their usual and customary places. The Yakima Tribe traditionally used the fishing areas of the tribes in this region. 21/

In its motion to intervene filed on February 2, 1993, Interior states that the Nisqually Project is located within the treaty-reserved, usual and accustomed fishing areas of a number of tribes including the Nisqually and Yakima Tribes. On April 22, 1994, Interior filed a comment letter in which it stated that the Nisqually Project is located within the treaty-reserved, usual and accustomed fishing areas of the Nisqually and Yakima Tribes, and states, without elaboration, that the anadromous fish propagated in the Nisqually River pass through the usual and accustomed fishing areas of "10 other indian tribes." 22/

Interior argues that the Commission is not carrying out its federal trust responsibilities to the tribes. Interior states that the treaty interests should not be considered in the balancing process, and believes that the Commission should use pre-project conditions as a baseline. Interior argues that if the Commission uses post-project conditions as a baseline, it would be a "taking" of property and this could only be authorized by Congress. Interior believes its 10(j) recommendations will best protect the tribes' treaty rights. Interior's recommendations include maintaining a 30-cfs minimum flow in the LaGrande bypassed reach, conducting a tailrace study to evaluate fish attraction and injury at the LaGrande powerhouse, and if determined necessary, constructing a tailrace barrier.

19/ Antoine v. Washington, 420 U.S. 194 (1975); Kimball v. Callahan, 590 F.2d 768 (9th Cir. 1979).

20/ 12 Stat. 951 (1855). That treaty gave the Yakima Tribe:

"[t]he right of taking fish at all usual and accustomed places, in common with citizens of the Territory..."

21/ 384 F. Supp. 312 (W.D. Wash. 1974).

22/ The Nisqually river empties into the lower portion of Puget Sound. Puget Sound opens to the Pacific Ocean at its upper portion. There are several Indian reservations along the Sound. Puyallup, Tulalip, Swinomish, Lummi, and Elwha tribes. We assume these are the indians to which Interior refers.

The Nisqually Tribe states that it relies on anadromous fish runs supported by the Nisqually River Drainage in exercising its protected treaty fishing rights, and it maintains that operation of the Nisqually Project, alone and cumulatively with the Yelm Project, affect those rights. The Nisqually Tribe operates the Clear Creek Hatchery facility on the Nisqually River, which began operation in 1991. It maintains that the Commission has a fiduciary duty to protect those rights.

The Nisqually Tribe also maintains that it is a government with responsibilities for fisheries management in affected waters, 23/ and therefore is entitled to be included in the study and review process in the same manner as a federal agency. The Nisqually Tribe states that no tailrace barrier is required and no flows above 5 cfs should be required in the bypassed reach because it would attract fish into the reach and subject them to being flushed out if spills were required.

In 1989, the Nisqually Tribe and Tacoma entered into a stipulation and settlement agreement which resolved all claims and disputes existing between them in long-standing federal court litigation. Pursuant to that agreement, Tacoma committed to provide the minimum flow regime in the Yelm Project bypassed reach and the mainstem Nisqually River which was developed by the Coordinating Committee, and the Nisqually Tribe agreed to support making the minimum flow regime permanent. Tacoma also agreed to provide certain operation and maintenance funding for the Clear Creek Facility. The Nisqually Tribe states that its treaty rights are protected under this settlement agreement. Neither party has brought this agreement before the Commission for approval.

The Commission has previously addressed the issue raised by Interior of whether or not it is required to use pre-project conditions as the baseline, and how it exercises its trust responsibilities in considering conditions for a project. In City of Tacoma, Washington, 24/ the Commission stated that it exercises its trust responsibility in the context of the Federal Power Act. The Commission stated that we will not use pre-existing conditions as a baseline, but will consider past impacts in determining what measures are appropriate to protect, mitigate, and enhance fish and wildlife resources.

23/ In particular, it argues that it is a co-manager of the treaty fishery along with the State of Washington.

24/ 67 FERC ¶ 61,152 (1994) reh'g denied 71 FERC ¶ 61,381 (1995).

The Commission is faced in this case with resource agencies who recommend certain environmental measures with which an affected tribe disagrees. The Nisqually Tribe objects to the agency-recommended minimum flow of 30 cfs for the LaGrande bypassed reach. They are concerned that fish habitat in the bypassed reach is marginal and that the higher, agency-recommended flows could attract fish into the reach where they would be subject to the negative effects of spill events. The Nisqually Tribe also disagrees with the agencies on the need to study and possibly install a tailrace barrier at the LaGrande powerhouse.

Pursuant to Sections 10(a)(2)(B) and 10(a)(3) of the FPA, the Commission is required to solicit and consider recommendations, including fish and wildlife recommendations, of the Indian tribes affected by the project. 25/ The Commission has stated that these sections of the FPA give such Indian tribes "a special status of their own" in the licensing process parallel to that of resource agencies. 26/ The Nisqually Tribe has legal rights pursuant to the Treaty of Medicine Creek which could be affected by the project, and accordingly, the Commission has given its comments and recommendations consideration similar to that given those of resource agencies under Section 10(a) of the FPA. Here, while the Nisqually Tribe disagrees, several agencies have recommended and supported their recommendations for a 30-cfs minimum flow in the bypassed reach and the study and possible installation of a tailrace barrier to protect fish and wildlife in the basin.

While we adopt the agency-recommended flow in this order, the license contains measures to improve fish habitat in the bypassed reach and protect fish in the bypassed reach from the effects of planned spill events, which should address the Nisqually Tribe's concern. On the tailrace barrier issue, the agency-recommended study that we adopt in this order, may, ultimately, show that a tailrace barrier is not needed as the Nisqually Tribe recommended. However, we currently don't have enough information to conclude that a tailrace barrier is not needed.

25/ "Affected" tribes are those whose legal rights as a tribe may be affected by the project. See 18 C.F.R. § 4.30 (1992).

26/ III FERC Stats. & Regs., Regs. Preambles ¶ 30,921 at p. 30,107 (Order No. 533) (May 8, 1991). 56 Fed. Reg. 23,108, May 20, 1991.

APPLICANT'S PLANS AND CAPABILITIES

In accordance with Sections 10 and 15 of the FPA, we have evaluated Tacoma's record as a licensee in the following areas: (A) consumption efficiency improvement program; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission service; (G) cost effectiveness of plans; and (H) actions affecting the public. Our findings follow.

(A) Consumption Efficiency Improvement Program

Tacoma's conservation program, outlined in Exhibit H of the license application, demonstrates that Tacoma has made good progress in implementing conservation programs in conjunction with the Bonneville Power Administration (BPA), the State of Washington, and on its own accord. There are programs available to residential, commercial, and industrial users and these continue to be refined and expanded. As of 1990, over 12,500 residential customers within Tacoma's service area had participated in various Tacoma-sponsored weatherization programs.

We find, pursuant to FPA Section 10(a)(2)(C), that Tacoma has in place an adequate electricity consumption efficiency improvement program.

(B) Compliance History and Ability to Comply with the New License

We have reviewed Tacoma's compliance with the terms and conditions of the existing license. Tacoma's overall record of making timely filings and of compliance with its license is satisfactory. Therefore, we believe Tacoma can satisfy the conditions of a new license.

(C) Safe Management, Operation, and Maintenance of the Project

The project dams and appurtenant facilities are subject to Part 12 of the Commission's Regulations concerning project safety. We have reviewed Tacoma's management, operation and maintenance of the project pursuant to the requirements of Part 12 and the associated Engineering Guidelines, including all applicable safety requirements such as warning signs and boat barriers, Emergency Action Plan, and Independent Consultant's Safety Inspection Report. We conclude that the project is being safely managed, operated, and maintained.

(D) Ability to Provide Efficient and Reliable Electric Service

All records indicate that Tacoma has operated the project in an efficient and reliable manner in the past.

Both Alder and LaGrande developments are designed for remote operation from the Tacoma Energy Remote Control Center. The control system is designed so the project facilities can be operated either manually or automatically from the main control switchboard located in the powerhouse.

Tacoma's preventive maintenance program helps to minimize unscheduled outages. Further modernization, including runner replacements and generator rewinds, has taken place on most of the generating units in the last 10 years.

We conclude that Tacoma is operating the Nisqually Project in an efficient and reliable manner.

(E) Need for Power

Tacoma is a municipal utility serving about 130,000 customers. Generation from Tacoma-owned hydroelectric facilities accounts for about 2,837,000 MWh, or 34 percent of Tacoma's customers' total energy needs. Tacoma relies on three sources to satisfy power requirements: (1) power generated by Tacoma owned-and-operated facilities; (2) power conserved by customers, and (3) power purchased from other generators, primarily the BPA.

The Pacific Northwest region is experiencing load growth and changing energy use patterns. Annual load growth rates for the Tacoma system range from a low of 0.50 percent for the low-growth scenario to 1.59 percent for the high-growth scenario. Under the high-growth forecast, 861 MW of capacity would be required during the planning horizon through 2012. Under the low-growth forecast, 565 MW of capacity would be required.

Currently, Tacoma purchases 42 percent of its power from BPA, 6 percent from the Columbia Storage Power Exchange, 5 percent from the Grant County Public Utility District No. 2 Priest Rapids Hydroelectric Project, and 3 percent from 5 small hydroelectric projects. Tacoma's contract with BPA for power purchases expires in 2001. After that, the ability of BPA to supply low-cost power to Tacoma depends on new environmental conditions that may be imposed on existing projects and renewal of the Canadian Entitlement in 2003. 27/

27/ See Section 1.4.2. of the FEIS.

Since it began operating, power from the Nisqually Project has been useful in meeting a portion of Tacoma's need for power. Because of both Tacoma's and regional load-growth, and uncertainty in the future availability of other low-cost power, we conclude that both Tacoma and the region will continue to have a short and long-term need for power.

(F) Transmission Service

Tacoma proposes no new power development at the project. For this project, the primary transmission line segment and related electrical facilities extend from each development's generators, through voltage transformers, to a point of connection with Tacoma's distribution system at the Cowlitz substation. The primary line segments include: (1) the Alder switchyard; (2) the two 115-kV, 3-mile-long lines from Alder to LaGrande; (3) the LaGrande transformer house; (4) the 26.2-mile-long, 115-kV line from LaGrande to the Cowlitz substation; and (5) appurtenant facilities.

We conclude that the existing transmission system is sufficient and no changes are necessary.

(G) Cost Effectiveness of Plans

Tacoma has no plans for making significant project changes. We conclude that the project, as currently configured and as operated pursuant to this order, will fully develop the economic hydropower of the site in a cost-effective manner.

(H) Actions Affecting the Public

Environmental enhancement measures included in the license will generally improve environmental quality, particularly in aquatic and wildlife resources. In addition, the project will have a beneficial impact upon recreational opportunities and Tribal treaty rights.

WATER QUALITY CERTIFICATION

Under Section 401(a)(1) of the Clean Water Act, 28/ the Commission may not issue a license for a hydroelectric project unless the state certifying agency has either issued a water quality certification for the project or waived certification by failing to act on a request for certification within a reasonable

28/ 33 U.S.C. § 1341(a)(1).

period of time, not to exceed one year. 29/

On May 2, 1991, Tacoma requested water quality certification for the Nisqually Project from the Washington Department of Ecology (Washington Ecology). On April 30, 1992, Washington Ecology granted Section 401 Water Quality Certification (WQC) for the Nisqually Hydroelectric Project. The certification conditions are water quality related, and are attached as Appendix A to this order.

The WQC requires a continuous 5-cfs minimum instream flow in the Nisqually River between the LaGrande dam and the LaGrande powerhouse. At the request of the WDFW and Interior, we are requiring a 30-cfs minimum flow in the LaGrande bypassed reach (Article 403). 30/

COASTAL ZONE MANAGEMENT ACT

Under Section 307 (c)(3)(A) of the Coastal Zone Management Act, 31/ the Commission cannot issue a license for a project within or affecting a state's coastal zone, unless the state concurs with the licensee's certification of consistency with the state's Coastal Zone Management Program (CZMP), such program having previously been approved by the Secretary of Commerce. The state's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification. By letter dated April 10, 1995, Washington Ecology concurred with Tacoma's certification of consistency with the CZMP.

29/ Section 401(a)(1) requires an applicant for a federal license or permit to conduct any activity which may result in any discharge into navigable waters to obtain from the state in which the discharge originates certification that any such discharge will comply with applicable water quality standards.

30/ Where, as here, the Commission's conditions do not conflict with certification conditions, the Commission can include more stringent conditions (see Noah Corporation, 57 FERC ¶ 61,170 (1991)).

31/ 16 U.S.C. § 1456(3)(A).

FISH PASSAGE

Section 18 of the FPA 32/ states that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. At this time neither Interior nor Commerce has prescribed fishways at the Nisqually Hydroelectric Project and neither agency has requested that its authority to prescribe fishways pursuant to Section 18 be reserved at this project.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES AND SECTION 10(j) PROCESS

Section 10(j)(1) of the FPA requires the Commission, when issuing a license, to include license conditions, based on recommendations of federal and state fish and wildlife agencies, submitted pursuant to the Fish and Wildlife Coordination Act, for the protection of, mitigation of adverse impacts to, and enhancement of fish and wildlife resources.

If the Commission believes that any such recommendation may be inconsistent with Part I of the FPA or other applicable law, the Commission must attempt to resolve the inconsistency, giving due weight to the recommendations, expertise, and statutory responsibilities of the agencies. If the Commission ultimately does not adopt a recommendation, it must publish findings that adopting the recommendation is inconsistent with Part I of the FPA or other applicable law and that the conditions selected by the Commission will adequately protect, mitigate adverse impacts to, and enhance fish and wildlife resources, together with a statement of the basis for these findings. 33/

32/ 16 U.S.C. § 811.

33/ See 16 U.S.C § 803(j).

This license includes conditions consistent with all recommendations made by WDFW, Interior, and Commerce that are within the scope of Section 10(j) of the FPA. 34/ These include measures to:

Protect or enhance the salmon and steelhead trout fishery

Article 401 requires a plan to minimize erosion and sedimentation during land-disturbing activities.
Articles 402, and 403 set minimum instream flows in the LaGrande bypassed reach and downstream of the LaGrande powerhouse.

34/ WDFW originally recommended that Tacoma not operate the project in a peaking or cycling mode (letter from Curt Leigh, Washington Department of Wildlife, Olympia, Washington, April 4, 1994). In the April 4, 1995, meeting on the project to resolve Section 10(j) issues, staff explained it had not adopted this recommendation because peaking and cycling are not clearly defined and could be interpreted to require run-of-river project operation. Staff also noted that the recommended minimum flows and ramping rates downstream of the project would adequately protect fish resources from the potentially adverse affects of peaking operations. WDFW acknowledged this and agreed that the condition on peaking or cycling was not needed.

WDFW also originally (letter from Craig Olds, Washington Department of Fisheries , Olympia, Washington, February 1, 1994) requested that spills from LaGrande Dam be no more than those necessary to meet downstream instream flow obligations (Initial Decision Terminating Docket [Decision]). There are several reasons that this recommendation conflicts with Section 10(a)(1) of the FPA. First, in the event of a flood, Tacoma must release flows in excess of its instream flow obligations. Second, this recommendation would preclude use of the LaGrande bypass for whitewater recreation thus eliminating one of the potential uses of the waterway. Finally, although this recommendation has not been formally withdrawn, we read WDFW's March 6, 1995, recapitulation of 10(j) issues (letter from Curt Leigh, Resource Program Manager, Washington Department of Fish and Wildlife, Olympia, Washington, March 6, 1995), which recommends that scheduled releases from LaGrande Dam occur only during November and December to protect fish and wildlife, as superseding the recommendation. In this letter no mention was made of the earlier request to limit all spills. Therefore, the license requirement to limit scheduled spills to November and December meets the intent of this recommendation.

Articles 405, 406, and 407 set upramping and downramping rates in the LaGrande bypassed reach and downstream of the LaGrande powerhouse.
Article 409 limits the timing of planned spill events.
Article 412 requires installation of a flow continuation valve at the LaGrande powerhouse to prevent flow disruptions.
Article 416 requires a plan for modifying the LaGrande bypassed reach to provide fish passage throughout the entire reach.
Article 417 requires a study to determine the need for a tailrace barrier.
Article 418 requires a spawning gravel augmentation study below the LaGrande powerhouse.
Article 419 requires a plan to augment spawning gravel in the LaGrande bypassed reach.
Article 420 requires a plan to monitor dissolved oxygen in the LaGrande powerhouse tailrace.
Article 421 requires a plan to monitor the effects of spill releases on fish in the LaGrande bypassed reach.

Enhance the Alder lake fishery

Article 413 requires a kokanee stocking plan.
Article 414 requires a plan to construct structures to enhance crappie and bass habitat.
Article 415 requires a fish passage maintenance plan to ensure passage between the lake and its tributaries.

Protect and enhance wildlife habitat in the project area

Article 422 requires that Tacoma acquire or control 2,450 acres of additional lands for wildlife management purposes.
Article 423 requires a wildlife management plan.
Article 424 requires a transmission right-of-way wildlife management plan.

In addition, Article 410 requires an annual report to the WDFW and Interior on the status of the above fish and wildlife protection and enhancement measures.

Ten other recommendations filed are not specific recommendations for the protection of, mitigation of adverse impacts to, or enhancement of fish and wildlife resources, and thus are beyond the scope of Section 10(j). These recommendations were nonetheless considered under Section 10(a)(1). 35/

Three of these recommendations were adopted.

35/ See FEIS, Table 6-3.

Washington Wildlife recommended that the licensee be prepared to prevent and control chemical or petroleum spills that may occur at the project. Such control measures are included in the plan required by Article 401, and in the WQC for the project.

WDFW recommended that the agencies be allowed to inspect the project site at any reasonable time. We do not object to granting agency personnel access to the project site, but because of safety reasons and property liability, we believe appropriate notification should be given to the licensee before any site visit. Article 411 provides for such access.

Washington Wildlife recommended the public be allowed free access to project lands and waters for navigation and recreation. Such public access is afforded as a standard condition in all licenses.

Seven of the ten recommendations have not been adopted.

Three recommendations involve the licensee funding biologist and park ranger staff positions at the project. Since the need for these positions has not been established, they are not being required.

WDFW recommended Tacoma create a fish habitat enhancement fund the amount of which would be based on a percentage of the project's operating revenue. We are not requiring this measure because we cannot directly quantify what, if any, environmental enhancement would be provided by this recommendation, nor can we quantify what the economic impact would be at the project. In addition, the substantial number of fish and wildlife enhancement measures, which are already being required in this license, will adequately protect or enhance fishery resources at the project.

WDFW and Interior recommended a decommissioning fund be established. In its policy statement on decommissioning, the Commission declined to generically impose such funds, and said it would deal with decommissioning on a case by case basis. 36/ In

36/ In its Policy Statement on project decommissioning (RM93-23-000), III FERC Statutes and Regulations, Regulations Preambles, ¶ 31,011 at pp. 31,233-34 (1994), the Commission found that the licensee is responsible for project decommissioning, but declined to impose a generic decommissioning requirement. Instead, the Commission decided to address the issue on a case-by-case basis and found that there may be particular facts on the record in individual cases that would justify license conditions requiring the establishment of decommissioning cost trust

(continued...)

this case, the Nisqually Project is economically and physically sound, and would have no significant adverse environmental impacts if operated in a manner consistent with the articles of this license. No party has suggested that the project be decommissioned now or at any time in the foreseeable future. There is no evidence in the record before us indicating that the life of the project may end within the next 40 years, nor is there any evidence that, if decommissioning were warranted in the future, Tacoma lacks the financial resources to perform that function. Thus, we find nothing in the record to support a requirement that Tacoma establish a decommissioning fund.

WDFW recommended that Tacoma obtain a Hydraulic Project Approval Permit before any work occurs within the ordinary high water line. Since this license sets out federal requirements, and does not incorporate specific state requirements, this recommendation is not being adopted.

WDFW recommended that the licensee develop boating access areas on the Nisqually River downstream of the project. I agree with the FEIS conclusion that this is not needed since a planned state park in the same area would eventually achieve similar results. In addition, a substantial amount of recreation enhancement in the project area is being required in this license.

OTHER ISSUES

A. Monitoring

Article 408 requires a plan for installing equipment to record data on the minimum flows, ramping rates and lake levels required in Articles 403 through 407. This will allow these fish protection measures to be monitored for compliance.

36/(...continued)
funds in order to assure the availability of funding when decommissioning occurs. The Commission stated that it would consider, for example, whether there are factors suggesting that the life of the project may end within the license term, and whether the financial viability of the licensee indicates that the licensee would be unable to meet likely levels of expenditure without some form of advance planning. Here, the licensee is a public utility that appears to be financially stable and capable of meeting decommissioning expenses when and if they arise in the license term.

B. Threatened and Endangered Species

Bald eagles, which are federally listed as threatened in the state of Washington, use the Nisqually River Basin as winter habitat. In addition, two active nest sites occur in the project vicinity. Northern spotted owl and marbled murrelet, both federally listed threatened species, are not known to occur on project lands. However, marginally suitable habitat for both of these species occur on project lands and on parcels to be acquired for wildlife enhancement. Further, an active northern spotted owl nest site occurs within 1.8 miles of proposed snag enhancements. Vegetation enhancements and recreation developments have the potential to adversely affect these three species.

As concluded in the FEIS, 37/ continued operation and maintenance of the project, with the protective measures recommended by the staff, wouldn't be likely to adversely affect the bald eagle, northern spotted owl, or marbled murrelet. Staff also concluded that continued project operation and maintenance would not affect the grizzly bear and gray wolf, federally listed endangered species.

Protective measures recommended in the FEIS include: (1) conducting site surveys for eagle nesting, roosting, and perch sites before implementing vegetation enhancements and recreation developments and protecting these eagle use sites from damage or loss; (2) implementing appropriate activity restrictions around eagle nesting, roosting, and perching sites, spotted owl activity centers, and occupied or suitable murrelet nesting habitat; and (3) installing markers on the project transmission line where it crosses the Mashel River and Ohop Creek to prevent adverse impacts to bald eagles. Moreover, measures to protect mature forests and to enhance the development of old-growth characteristics within mature and younger forests would benefit the northern spotted owl and marbled murrelet.

By letter dated December 23, 1996, the staff asked FWS for its concurrence on the staff's conclusion. By letter dated January 28, 1997, FWS concurred with the staff's conclusion based on the implementation of specific timing restrictions to protect the bald eagle, marbled murrelet, and spotted owl from human disturbance; and the licensee's preparation (with assistance and review by the FWS) and implementation of the project recreation and habitat management plans.

Article 425 requires Tacoma to file a threatened and endangered species protection plan that incorporates the above

---

37/ Section 4.1.4.3.

conservation measures, including the specific timing restrictions recommended by FWS. Articles 423 and 427 require development and implementation of a wildlife management and recreation plan, respectively. These plans must be prepared after consultation with FWS and any construction authorized by these plans must adhere to the timing restrictions to protect endangered species required by article 425. Also, Article 426 requires Tacoma to develop a plan for installing avian markers on the project transmission lines.

C. Recreation and Land Use Conditions

Alder Reservoir. Alder Reservoir is used for water recreation. The residents who live along the shore of the reservoir are concerned that Tacoma allows the reservoir level to get too low in the summer. They ask for better management of the reservoir level. Article 404 of this license requires that Tacoma operate the project such that Alder Lake water levels remain above 1,197.0 feet from Memorial Day through Labor Day and above 1,170.0 feet at all other times, except as needed to meet the minimum flows specified in the Decision. This requirement should protect the lake level for summer recreational use, and protect aquatic life in the lake.

Recreation Plan. Article 427 approves Tacoma's conceptual plan for improving and expanding recreation facilities and shoreline aesthetics at Alder Lake, and requires that the plan be finalized. Once implemented, the improvements should help meet the demand for and better manage public use of this project impoundment.

Whitewater Boating. Whether whitewater boating is feasible or should be provided in the LaGrande bypassed reach, also known as the LaGrande Canyon (Canyon) 38/, has been a point of contention in this proceeding since Tacoma filed its application to relicense the project. Tacoma's position has consistently been that the Canyon is an unsafe area that should be kept closed to the public. Tacoma is concerned about their potential liability for accidents that could occur due to the difficulty of access into the Canyon, the difficulty of the whitewater run, and the difficulty of rescue in the Canyon. The American Whitewater

38/ The 1.7-mile-long LaGrande bypassed reach is situated in a deep gorge between LaGrande dam and LaGrande powerhouse. The bypassed reach is currently a restricted access area. The canyon is narrow with 200- to 300-foot-high vertical to near-vertical walls. Currently, the bypassed reach is off-limits to the public because of the hazardous terrain. There is a gate across the access road and a sign posted to keep vehicles out of the area.

Affiliation (AWA) views the Canyon as an untapped whitewater boating resource that should be opened as a result of relicensing.

Those involved with managing Nisqually River fisheries have been concerned about the effect that releases for boating could have on fish residing in the canyon and fish migrating upstream at the time of any release. Local citizens have been concerned that the use of water for whitewater boating could draw down LaGrande reservoir such that there would be insufficient water for reservoir recreation. The local fire and rescue organization is concerned that opening the Canyon for boating could result in an increased need for rescue in the Canyon. 39/

On June 4, 1992, staff issued an additional information request (AIR), which included a requirement that Tacoma conduct a whitewater boating feasibility study of the Canyon. 40/ A specific methodology was requested to determine the minimum, optimum, and maximum flows that would be needed for whitewater boating. This methodology involved on-site evaluation by boaters of a range of flows specifically released for the study.

Because of the above concerns, and drought conditions in western Washington in 1992, this AIR met with some resistance, and a number of preliminary studies occurred before the Canyon was actually boated. 41/ However, on June 28, 1994, a group of

39/ Letter from Leonard M. Vail, Jr., Fire Chief, Pierce County Fire Protection District No. 15, Eatonville, WA, dated July 28, 1994.

40/ On April 11, 1994, staff modified this AIR to include information on the effect of the flow release on Alder Lake levels, power generation, and on the fishery within the Canyon.

41/ A walking tour of the Canyon occurred on June 25, 1992, during which 5.0 cfs was released from the dam. The walk-through was attended by representatives of the AWA, the Pierce County Sheriff's Department (PCSD), the National Park Service (NPS), and the Washington State Parks and Recreation Commission (WSPRC). The purpose of the tour was to determine the feasibility of safe access to the Canyon and whether the Canyon was boatable. The tour showed that access to the Canyon would probably need to be facilitated by some sort of climbing gear, and that there were two obstacles in the Canyon (an old civil structure and a boulder sieve) that could make it not boatable.

(continued...)

boaters did successfully boat the Canyon. The AWA conducted the on-water portion of the test, and provided on-water video documentation. Test participants were at the advanced-to-expert level. Tacoma provided the test flows, access, and some video documentation. Two test runs were conducted: one at 800 cfs and the other at 1,000 cfs. Commission staff were present to observe the test.

The consensus of the boaters was that this section of the Nisqually River represented "one of the top five boating rivers in the state of Washington." 42/ After the test, Tacoma remained opposed to boating in the Canyon, but asked that any required boating release only occur between mid-November through December (contingent on water availability) to minimize effects on downstream fisheries, and that the flow releases occur within a single month to minimize costs due to lost generation. 43/ The AWA has requested that Tacoma be required to make 10 to 15 releases a year of 800 to 1,000 cfs into the LaGrande bypassed reach for whitewater boating. The AWA argues that the LaGrande

41/(...continued)
On November 15, 1993, Tacoma released and videotaped flows of 470, 670, 860, 930, and 1,020 cfs into the Canyon. The main purpose of this study was to determine whether the boulder sieve and civil structure were boatable. About 25 people, including representatives of the AWA, American Rivers, Rivers Council of Washington, WSPRC, the Nisqually Tribe, and Commission staff observed the flows. The flow releases showed that the Canyon was likely boatable, but that the civil structure and boulder sieve might need to be portaged.

42/ AWA in its report prepared after the test runs identified what it considered the outstanding features of the bypassed reach. First, the river channel is wide enough to provide multiple routes through each rapid, as opposed to most class III-V rivers which are narrow. The reach provides good eddies and outstanding and "rare" play areas for whitewater boaters including the rapid named by the test participants as "Play Hole," which the test participants consider the "best surfing hole" in the state. AWA states that while steep canyons exist elsewhere in the state, LaGrande Canyon is unique because of its combination of beauty and abundance of portage and scouting opportunities. AWA states further that the value of potential late season releases (late June to September), when other rivers are too low to be boated would be of very great value to the boating user groups.

43/ Tacoma's response to April 11, 1994, staff AIR, filed August 4, 1994.

bypass is unique in Washington State because of its combination of numerous Class III, IV, and V rapids with outstanding features such as river width, carrying capacity, portage routes, high canyon walls and world class scenery.

In the December 1994 DEIS, staff recommended that Tacoma prepare a plan for a 3-year whitewater boating test with flow releases of 800 cfs and 1,000 cfs on consecutive days for one weekend in June and one weekend in November. Included with the plan staff recommended would be the development of a permitting system for boaters to gain access to the Canyon, provisions for maintaining water levels in Alder reservoir, and for maintaining required minimum flows downstream. After three years of releases, the plan would be revised based on the results of the test.

The WDFW objected to flow releases in June, and asked that the releases only occur late November through December. 44/ They also asked that whitewater releases be coordinated with flows through the powerhouse to maintain flows downstream of the project. Tacoma asked for clarification on what type of boating data would be collected, and how it would be used to determine whether to continue the flow releases. 45/ American Rivers et al questioned the use of a permit system and asked that re-evaluation of the whitewater releases be subject to an honest, open analysis of demand for the resource. 46/ The Tacoma-Pierce County Chamber of Commerce recommended that boating use during the 3-year test be strictly controlled. 47/ The Nisqually Tribe asked that releases for boating only be done in November during years of abundant water. 48/ Twenty-five individuals in 16 separate letters expressed support for opening the Canyon for whitewater boating. In the FEIS, staff, in response to agency concerns, revised their recommendation to include flow releases only during November and December.

Based on my review of the facts in this case, I see no reason at this time, to deny further evaluation of the potential for whitewater boating in the Canyon. Throughout this

44/ Letter from Curt Leigh, Resource Program Manager, Washington Department of Fish and Wildlife, Olympia, Washington, dated March 6, 1995.

45/ Tacoma's comments on the DEIS dated March 13, 1995.

46/ Comments on the DEIS dated March 13, 1995.

47/ Comments on the DEIS dated February 17, 1995.

48/ Comments on the DEIS dated March 15, 1995.

proceeding, in view of the competing demands for Nisqually River water and safety concerns, we have moved with caution to determine whether boating in the Canyon is feasible. Based on the data that's been collected to date, it would appear that, with proper timing, whitewater boating opportunities could be provided in the Canyon. I don't dispute that whitewater boating in the Canyon comes with its own unique set of challenges and risks. However, the fact that there is risk involved in whitewater boating has not stopped the Commission from requiring whitewater flow releases in a number of recent cases. 49/

Article 428 of this license requires Tacoma to prepare a plan for continued evaluation of the potential for whitewater boating in the Canyon. The plan will include provisions for releasing whitewater flows, and collecting data to help determine the level of demand for the resource and its carrying capacity. Other provisions in the plan will protect downstream fisheries and reservoir water levels during whitewater releases. In addition, Article 421 requires Tacoma to monitor the effects of the whitewater flow releases on the fishery in the Canyon. With this information, we will be in a much better position to determine the long-term need and effects of whitewater boating in the Canyon.

Cultural Resources. Any land-clearing or land-disturbing activity that occurs at the project has the potential to uncover previously unidentified archeological or historic properties. Article 429 includes measures for avoiding and mitigating effects on such properties.

Use and Occupancy of Project Lands and Waters. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Article 430 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape plantings, non-commercial piers, retaining walls, etc. Such uses must be consistent with the purpose of protecting and enhancing the scenic, recreational, and environmental values of the project.

D. Administrative Conditions

The Commission collects annual charges from licensees for the administration of the FPA, and to reimburse the United States for the occupancy and use of any federal lands at projects. Article 201 provides for the collection of such funds. In addition, some projects directly benefited during the term of

49/ See 69 FERC ¶ 61,168, 71 FERC ¶ 62,193, 74 FERC ¶ 62,087, 75 FERC ¶ 61,111, 76 FERC ¶ 61,152, and 77 FERC ¶ 62,002.

their original licenses, from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 501 requires the licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

CUMULATIVE IMPACTS

The Nisqually River flows west-northwest from Mount Rainier to the southern end of Puget Sound. Most of the Nisqually River upstream of the Nisqually Project is managed for timber production. Below the Nisqually Project, the river flows through a steep canyon to the Mashel River juncture and then enters the rolling hills of the Puget Sound lowlands. This land is used for agriculture and timber production. Below the Yelm Project, the river runs through the Nisqually Indian Reservation and Fort Lewis Military Reservation.

As noted, the Nisqually Hydroelectric Project is located on the Nisqually River between the headwaters of the river in Mt. Rainier National Park and the mouth of the river at Puget Sound. The project occupies an 11-mile stretch of the Nisqually River near the towns of Elbe, Alder, and LaGrande, Washington.

The 12-MW Yelm Hydroelectric Project is located on the Nisqually River 14.4 miles downstream from the Nisqually Hydroelectric Project, near the towns of Yelm and McKenna.

The FEIS for the Nisqually Project addressed the cumulative effects on geology and soils, water quantity and quality, aquatic resources, terrestrial resources, and recreation resources. The EA for the Yelm Project addressed the cumulative effects on the salmon and steelhead fishery and on recreation.

To improve spawning habitat, the Nisqually Project DEIS recommended a gravel enhancement plan downstream of the Nisqually Project to offset the loss of gravel and fine sediment in the Nisqually River below the Nisqually Project. In response, the Pierce County Department of Emergency Management and several landowners adjacent to the river downstream of the Nisqually Project expressed concern that the gravel placement proposed by staff in the DEIS would worsen the flooding problem that occurs in that area. 50/

Pierce County and the landowners also suggested that the Yelm Project has contributed to the flooding since 1986, when its flashboards were replaced with stationary gates. Because the current gates do not collapse in floods like the flashboards did,

50/ Comment letters filed March 6 and 14, 1996.

the landowners believe the dam is allowing water to back up, causing aggradation and flooding.

In response to Pierce County's concerns, the Corps notes that the lands surrounding the Nisqually River downstream from the Nisqually Project are highly erodible and present very little resistance to flows and that the river with its highly erodible banks would be very difficult to contain in a stable channel. 51/ The river is subject to frequent landslides.

The FEIS modifies the gravel augmentation recommendation to specify a study by the licensee, which would involve placement of only 1,000 cubic yards of suitable gravel. The FEIS finds that because natural occurrences like landslides and man-made occurrences like forestry practices, generate bedloads significantly higher than 1,000 cubic yards, augmentation with 1,000 cubic yards of gravel should not contribute to downstream aggradation or flooding. 52/ Article 418 of the license requires the licensee to file a plan to augment spawning gravel in the Nisqually River between the LaGrande powerhouse and the Mashel River.

The FEIS also finds that upstream aggradation does not appear to be caused by the Yelm diversion dam. This is based on Centralia's contention that the rebuilt Yelm diversion dam has less influence on the river profile than the old dam with flashboards, and that since its construction, Centralia has not noted any increase in the sediment accumulation nor any change in the morphology of the river in the project area. In addition, Centralia estimates the backwater effect of the project has remained at about 1,200 to 1,500 feet upstream since 1929. Based on this information and the Corps' findings, we conclude that the Yelm diversion dam has minimal impact, if any, on upstream aggradation and flooding.

Regarding water quality, quantity, and the maintenance of the downstream fishery, the FEIS finds that continuation of the flow regime authorized by the order terminating docket will continue to benefit the salmon and steelhead fishery resources by providing stable, high flows during fall migration periods when many adult salmonid species are present. 53/ No one has recommended a different flow regime.

51/ See letter from Lester E. Soule, U.S. Army Corps of Engineers, May 9, 1995.

52/ See Section 4.4.1 of the Nisqually Project Final EIS.

53/ See Section 3.4 and pp. 34-8 and 6-16 of the Final EIS.

The EA for the Yelm Project concluded that licensing the Yelm Project, with the conditions recommended, would provide cumulative beneficial impacts for the salmon and steelhead fishery and for recreation opportunities of the Nisqually River Basin. The FEIS for the Nisqually Project concluded that licensing both projects, with the conditions recommended, would have beneficial cumulative impacts for the salmon and steelhead fishery and enhance recreation opportunities in the Nisqually River Basin.

The FEIS for the Nisqually Project also concludes that, with the preservation of over 3,000 acres of wildlife habitat at the Nisqually Project, there will be beneficial cumulative impacts to the wildlife resources in the Nisqually River Basin.

COMPREHENSIVE PLANS

Section 10(a)(2)(A) of the FPA 54/ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving waterways affected by the project. Under Section 10(a)(2)(A), federal and state agencies filed 68 plans that address various resources in Washington. Of these, 9 plans are relevant to this project. 55/ No conflicts were found.

54/ 16 U.S.C. § 803(a)(2)(A).

55/ (1) Nisqually River Basin instream resources protection program, 1981, Washington State Department of Ecology, Olympia, Washington; (2) Nisqually River management plan and final environmental impact statement, 1987, Washington State Department of Ecology, Olympia, Washington; (3) Washington's statewide comprehensive outdoor recreation plan, 1985, Interagency Committee for Outdoor Recreation, Olympia, Washington; (4) Washington outdoors: assessment and policy plan 1990-1995, 1990, Washington State Interagency Committee for Outdoor Recreation, Tumwater, Washington; (5) Northwest conservation and electric power plan, 1986, Northwest Power Planning Council, Portland, Oregon; (6) 1987 strategies for Washington's wildlife, 1986, Washington State Department of Game, Olympia, Washington; (7) Hydroelectric project assessment guidelines, 1987, Washington State Department of Fisheries, Olympia, Washington; (8) Shorelands and Coastal Zone Management Program, 1986, Washington State Department of Ecology, Olympia, Washington; and (9) Resource Protection Planning Process - Southern Puget Sound Study Unit, 1987, Washington State Department of Community Development, Olympia, Washington.

COMPREHENSIVE DEVELOPMENT

Sections 4(e) and 10(a)(1) of the FPA, require the Commission, in acting on applications for license, to give equal consideration to the power and developmental purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgement will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

The FEIS analyzed the effects associated with issuance of a new license for the two developments that compose the Nisqually Hydroelectric Project. The FEIS recommends a number of measures to protect and enhance environmental resources, which we adopt, as discussed herein. Implementation of the measures will enhance water quality, fish and wildlife resources, cultural resources, and recreation resources, and will provide economic and subsistence benefits to the tribe by enhancing the Nisqually River's anadromous fisheries.

In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, pursuant to Section 10(a)(1) of the FPA, the Commission considers a number of public interest factors, including the economic benefits of project power.

Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corporation, Publishing Paper Division, 56/ the Commission employs an analysis that uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

Based on current economic conditions, without future escalation or inflation, the Nisqually Hydroelectric Project, if licensed with the conditions we have adopted, would produce about 556.9 gigawatthours of energy annually at an annual cost of about

56/ 72 FERC ¶ 61,027 (1995).

$5,500,000 (9.9 mills/kWh). The current annual value of the project's power would be about $15,650,000 (28.1 mills/kWh). We base this value on the cost of alternative resources, where the alternative would be an equivalent amount of power purchased from Bonneville Power Administration (BPA) at its current average system cost. 57/ BPA calculates its average system cost for any year by dividing its forecasted revenue requirements, which include the cost of the federal base system, new resources, and transmission, by its expected total system sales. To project the cost of new resources, BPA assumes new resources available include combustion turbine, cogeneration, small hydro, efficiency improvements, wind and geothermal.

To determine whether the proposed project is currently economically beneficial, we subtract the project cost from the value of the project power. We find that the project would be economically beneficial, costing about $10,150,000 annually (18.2 mills/kWh) less than the alternative.

As proposed by Tacoma, without the additional environmental enhancements we recommend, the project would produce about 571.6 Gwh of energy annually, at an annual cost of about $4,890,000 (8.6 mills/kWh). The value of the project power, if licensed as proposed by Tacoma, would be $16,060,000 annually (28.1 mills/kWh) based on the current cost of alternative power. The project would be economically beneficial, costing $11,170,000 (19.5 mills/kWh) less than the alternative.

Based on review of the agency and public comments filed on this project, review of staff's evaluation of the environmental and economic effects of the proposed project and its alternatives, and analysis pursuant to Section 10(a)(1), I find that the Nisqually Hydroelectric Project, with our mitigative and enhancement measures, will be best adapted to the comprehensive development of the Nisqually River for beneficial public uses.

LICENSE TERM

Section 15(e) of the FPA 58/ specifies that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years, nor more than 50 years. The Commission's policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigative and enhancement

57/ Bonneville Power Administration, Wholesale Power and Transmission Rate Projections 1993-2014 and Historical Wholesale Power Rates, November, 1993.

58/ 16 U.S.C § 808(e).

measures; 40-year terms for projects with a moderate amount thereof; and 50-year terms for projects with an extensive amount thereof.

Tacoma proposes moderate mitigation and enhancement. Accordingly, the license for the Nisqually Hydroelectric Project will be for a term of 40 years, effective from the first day of the month the license is issued. I am also, today, by separate order, issuing a 40-year license for the Yelm Project to accommodate the moderate construction and enhancement measures that licensee will be undertaking. Thus, the license expiration dates of these projects will be the same.

SUMMARY

Background information, analysis of impacts, and support for related license articles are contained in the FEIS issued for this project.

The design of this project is consistent with engineering standards governing dam safety. The project will be safe if operated and maintained in accordance with the requirements of this license. Analysis of related issues is provided in the Safety and Design Assessment prepared for the Nisqually Hydroelectric Project and available in the Commission's public file for this project.

Based on my review of the record in this proceeding, I conclude that issuing a new license for Project No. 1862, with the required enhancement measures and other special license conditions, would not conflict with any planned or authorized development, and is best adapted to the comprehensive development of the Nisqually River for beneficial public uses.

The Director orders:

(A) This license is issued to the City of Tacoma, Washington (licensee), for a period of 40 years, effective the first day of the month in which this order is issued, to operate and maintain the Nisqually Hydroelectric Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interest in those lands shown by Exhibit G:

Exhibit	FERC No. 1862-	Showing
G	025	Project Maps
G.1	026	Project Vicinity Key Map
G.2	027	Page 1 of 1 – Principal Project Works
G.3	028	Page 1 of 7 – Nisqually Boundary Key Map
G.3	029	Page 2 of 7 – General Map
G.3	030	Page 3 of 7 – LaGrande Reservoir
G.3	031	Page 4 of 7 – Alder Reservoir
G.3	032	Page 5 of 7 – Alder Reservoir
G.3	033	Page 6 of 7 – Alder Reservoir
G.3	034	Page 7 of 7 – Alder Reservoir
G.4	035	Page 1 of 3 – Transmission Line
G.4	036	Page 2 of 3 – Transmission Line Alder-LaGrande Portion
G.4	037	Page 3 of 3 – Transmission Line

(2) The Nisqually Hydroelectric Project, which consists of two hydroelectric developments, as described below:

(a) Alder Development

The Alder development consists of: (1) a 285-foot-high by 1,600-foot-long concrete arch dam (Alder dam) that impounds Alder Lake, a 7.4-mile-long storage reservoir with a maximum surface area of 3,065 acres and an operating storage capacity of 161,457 acre-feet at an elevation of 1,207 feet (full pool); (2) a reinforced concrete spillway consisting of four 32-foot-wide spillway gates (3) two 10-foot-diameter steel penstocks located within the dam, each with four removable trashracks; (4) a 130-foot-long, 53-foot-wide reinforced concrete powerhouse located at the base of Alder dam, containing two vertical shaft, hydraulic-turbine-driven generators with a combined capacity of 50,000 kW; (5) a switchyard; and (6) two 115-kV, 3-mile-long transmission lines terminating at the LaGrande development.

(b) LaGrandé Development

The LaGrande development consists of: (1) a 192-foot-high , 710-foot-long concrete gravity arch dam (LaGrande dam), located 1.5 miles downstream from Alder dam that impounds LaGrande Reservoir, a 45-acre impoundment containing 2,700 acre-feet of total storage at an elevation of 935 feet (full pool); (2) a 164-foot-long spillway consisting of four 23-foot-high, 32-foot-long radial gates; (3) a 78-inch-diameter overflow pipe with a 66-inch-diameter Howell-Bunger valve; (4) a 14.5-foot-diameter, 6,400-foot-long tunnel connected to (5) a 40-foot-diameter, 115-foot-high surge tank; (6) a 13.5-foot-diameter steel pipe terminating at (7) a 10-foot-diameter manifold that branches into (8) four 5-foot-diameter penstocks and (9) one 11.5-foot diameter penstock; (10) a 200-foot-long, 53-foot-wide reinforced concrete powerhouse containing (11) five hydraulic-turbine-driven generators with a combined capacity of 65,000 kW; (12) an attached transformer house; (13) and a 26.2-mile-long, 115-kV transmission line terminating at the Cowlitz substation.

The project works generally described above are more specifically shown and described by those portions of Exhibits A and F shown below:

Exhibit A:

Pages A-1 through A-8 of Exhibit A filed December 26, 1991.

Exhibit F:

Exhibit	FERC No. 1862-	Showing
F.1	001	Plan and Profile
F.2	002	Alder Dam General Plan and Sections
F.3	003	Alder Dam Elevation and Sections
F.4	004	Alder Dam Geologic Cross Section at Damsite
F.5	005	Alder Dam Foundation Grouting and Drainage
F.6	006	Alder Dam Spillway Gate Alteration Typical Section and Plan
F.7	007	Alder Powerhouse Architectural Elevation
F.8	008	Alder Powerhouse Transverse Section
F.9	009	Alder Powerhouse Longitudinal Section

F.10	010	Alder Powerhouse Generator Floor
F.11	011	Alder Powerhouse Turbine Floor
F.12	012	Alder Dam River Outlet
F.13	013	LaGrande Dam General Plan and Sections
F.14	014	LaGrande Dam Elevations and Sections
F.15	015	LaGrande Dam Geologic Cross Section at Damsite
F.16	016	LaGrande Dam Gallery System Foundation Grouting and Drainage
F.17	017	LaGrande Tunnel General Plan of Penstock Connection and Surge Tank
F.18	018	LaGrande Powerhouse Plan of Old Building Showing Equipment
F.19	019	LaGrande Powerhouse West Elevation of Old and New Buildings
F.20	020	LaGrande Powerhouse Architectural Elevations
F.21	021	LaGrande Powerhouse Transverse of Old Building
F.22	022	LaGrande Powerhouse Transverse Section
F.23	023	LaGrande Powerhouse Gallery Plan and Longitudinal Section
F.24	024	LaGrande Powerhouse Turbine and Generator Floor Plans

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A, F, and G described above are approved and made part of the license.

(D) This license is subject to the articles in Form L-1 (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Lands of the United States, and the following additional articles:

Article 201. The licensee shall pay the United States an annual charge, effective the first day of the month in which this license is issued, for the purpose of:

(A) reimbursing the United States for the cost of administering the FPA, as determined by the Commission. The authorized installed capacity for that purpose is 115,000 kilowatts.

(B) recompensing the United States for the use, occupancy, and enjoyment of 38 acres of its lands. The licensee shall pay a reasonable annual charge as determined by the Commission in accordance with its regulations in effect from time to time.

Article 401. At least six months before the start of any land-disturbing or land-clearing activities, the licensee shall file with the Commission, for approval, a plan to control erosion, to control slope instability, to minimize the quantity of sediment, and to control spills of chemical or petroleum products resulting from project-related construction and operation.

The plan shall be based on actual-site geological, soil, and groundwater conditions and on project design, and shall include, at a minimum, the following items:

(a) A description of the actual site conditions.

(b) Measures proposed to control erosion, to prevent slope instability, to minimize the quantity of sediment, and to control spills of chemical or petroleum products resulting from project construction and operation.

(c) Detailed descriptions, functional design drawings, and specific topographic locations of all control measures.

(d) Measures for identifying and protecting, or relocating, any geodetic control monuments that may be affected by the project. This information is available from the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), and National Geodetic Survey (NGS).

(e) A specific implementation schedule and details for monitoring and maintenance programs for project construction and operation.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, the Washington Department of Fish and Wildlife, the Washington Department of Natural Resources, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the U.S. Forest Service, NOAA, NOS, and NGS. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on geological, soil, and groundwater conditions at the site.

The Commission reserves the right to require changes to the plan. No land-disturbing or land-clearing activities shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 402. The licensee shall operate the project such that discharges into the Nisqually River downstream from the LaGrande powerhouse, as measured at the Yelm diversion dam, meet or exceed those minimum instream flows specified in the 1993

Decision Terminating Docket. 59/ These flows are as follows:

PERIOD	MINIMUM FLOW (cubic feet per second)
October 1 to December 15	700
December 16 to May 31	900
June 1 to July 31	750
August 1 to September 30	575

This flow schedule may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon agreement between the licensee and the Nisqually River Coordinating Committee. If this flow schedule is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 403. Within 60 days following approval of the monitoring plan required by Article 408, the licensee shall release from LaGrande dam into the Nisqually River a minimum flow of 30 cfs, as measured at the spillway plunge pool, or inflow to Alder Lake, whichever is less, for the protection and enhancement of fish and wildlife resources in the LaGrande bypassed reach.

This flow may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon agreement between the licensee, the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and FWS. If this flow is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

59/ The ALJ's March 25, 1993 Initial Decision Terminating Docket (Decision) is hereby made a part of this License Order. The Decision specifies minimum instream flows for both the mainstem Nisqually River upstream from the Yelm diversion dam and the Yelm bypassed reach downstream from the Yelm diversion dam. Tacoma is responsible only for meeting the mainstem requirements as defined by paragraphs (1) through (6) on pages 7 and 8 of the Decision. Furthermore, where the Decision specifies LaGrande or LaGrande dam as the point where instream flow requirements apply, the Decision is hereby amended to read immediately downstream from the LaGrande powerhouse.

Article 404. Within 60 days following approval of the monitoring plan required by Article 408, the licensee shall operate the project such that Alder Lake water levels remain above 1,197.0 feet from Memorial Day to Labor Day and above 1,170.0 feet at all other times, except as necessary to meet those minimum instream flows specified in the 1993 Decision Terminating Docket, to protect fish habitat and recreation opportunities in Alder Lake. If the water level in Alder Lake falls below these limits, the licensee shall operate the project to conserve water such that the combined discharge of LaGrande dam and the LaGrande powerhouse is no more than 5 percent greater than that necessary to meet the minimum instream flows specified in the Decision, or such temporary flows as the Nisqually River Coordinating Council shall deem appropriate.

These limits may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon agreement between the licensee, the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, U.S. Fish and Wildlife Service and the NRCC. If these limits are so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Season	Daylight hours[1] (inch/hour)	Night hours (inch/hour)
February 16 through June 15	No ramping	2
June 16 through October 31	1	1
November 1 through February 15	2	2

[1] Daylight hours begin 1 hour before sunrise and end 1 hour after sunset.

Article 405. Within 60 days following approval of the monitoring plan required by Article 409, the licensee shall operate the project such that at all river flows less than 5,000 cfs, water level reduction rates (downramping) in the Nisqually River downstream from LaGrande dam and downstream from the LaGrande powerhouse stay within the following limits:

These limits may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon agreement between the licensee, the Nisqually Tribe, the Washington Department of Fish and Wildlife, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. If these limits are so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 406. Within 60 days following approval of the monitoring plan required by Article 409 the licensee shall reduce spill rates in excess of 5,000 cfs at LaGrande dam to 5,000 cfs as quickly as practical to minimize loss of fish and fish attraction into the bypassed reach during high spills and to minimize the loss of water from potential generation.

Article 407. Within 60 days following approval of the monitoring plan required by Article 409, the licensee shall operate the project such that water level increase rates (upramping) in the Nisqually River downstream from LaGrande dam do not exceed 6 inches per hour for the first hour of any spill to protect fish habitat in the LaGrande bypassed reach.

These limits may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon agreement between the licensee, the Nisqually Tribe, the Washington Department of Fish and Wildlife, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. If these limits are so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 408. Within six months from the date of issuance of this license, the licensee shall file with the Commission, for approval, a plan to monitor minimum flows in the bypassed reach (Article 403), minimum lake levels (Article 404), and all ramping rate requirements (Articles 405, 406, and 407). The plan must include a provision for a telemetered continuous recording stream gage to be installed at the LaGrande dam plunge pool.

The plan shall include but not be limited to:

(1) the method of collecting, and recording the flow, lake level and ramping rate data;

(2) a schedule for installing the required equipment;

(3) the location, design, and calibration of the monitoring equipment;

(4) a provision for providing recorded data to the

consulted agencies and Nisqually Tribe within 30 days from the date of an agency's or the Nisqually Tribe's request for the data.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The gaging plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval, the licensee shall implement the proposal, including any changes required by the Commission.

Article 409. The licensee shall conduct all planned spills including planned maintenance and whitewater boating releases only between November 15 and December 31 to protect fish and fish habitat in the Nisqually River downstream from LaGrande dam. Spills required due to high inflows or emergency operations are exempt from this requirement.

Article 410. On January 1 of each license year, the licensee shall provide an annual report to the Washington Department of Fish and Wildlife and the U.S. Fish and Wildlife Service detailing the status of the fish and wildlife protection and enhancement measures specified in this License Order including streamflow records, reservoir water level records, dam spill records, stocking records, a progress report on wildlife habitat enhancement land acquisition, and a discussion of any deviations from the License Order.

Upon request of the above agencies, the licensee shall also maintain and make available, within 30 days of the request, a record of project operations, including the daily amount of diversion, the daily amount of spillage over project dams, and the rate of change of both diverted flows and bypassed reach flows. In addition, the licensee shall document all unusual occurrences such as load rejections, powerhouse mechanical problems, turbine or intake failures, fish kills, and sedimentation events; bring such occurrences to the immediate attention of the resource agencies identified; and make

documentation of such events available to those agencies.

Article 411. The licensee shall allow representatives of the Nisqually Tribe, the Washington Department of Fish and Wildlife, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service who show proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties, after appropriate advance notification is made.

Article 412. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to install and operate as necessary a flow continuation valve or valves at the LaGrande powerhouse designed to convey up to 850 cubic feet per second safely to the Nisqually River to eliminate the need to spill at LaGrande dam during powerhouse maintenance and other non-flood operations for the protection of fish and wildlife habitat in the LaGrande bypassed reach.

The plan shall include detailed design drawings and capacities of the licensee's proposed flow continuation valve(s) and a schedule for installation of the valve(s).

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The flow continuation plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 413. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to annually stock 500,000 kokanee fry to Alder Lake to enhance the lake's resident kokanee fishery. The plan shall include a monitoring program designed to assess the effectiveness of stocking. The kokanee stocking plan shall incorporate the stocking policies and procedures of Washington State's Salmonid

Disease Control Policy formally adopted on March 17, 1992, and shall include a schedule for:

(1) implementation of the stocking activities which would commence within two years of license issuance and evaluation of the program's effectiveness;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The kokanee stocking plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 414. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to construct artificial reefs in Alder Lake to enhance the black crappie and largemouth bass fisheries. The plan shall include an evaluation program designed to assess the reefs' effectiveness.

The plan shall include, but not be limited to, a description of the materials and methods to be used, a map showing the proposed location of reef placements, and a schedule for:

(1) implementation of the program within two years of license issuance and evaluation of the program's effectiveness;

(2) consultation with the appropriate federal and state

agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. Construction of the artificial reefs shall not begin until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 415. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to maintain fish passage from Alder Lake into its tributaries (including, but not limited to, the Little Nisqually River, East Creek, Catt Creek, and Stahl Creek).

The fish passage maintenance plan shall include, but not be limited to, a description of proposed monitoring activities and fish passage enhancement measures that could be implemented and a schedule for:

(1) monitoring fish passage conditions and implementing any necessary fish passage enhancement measures;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife,

National Marine Fisheries Service, and U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The fish passage maintenance plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 416. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to modify the LaGrande bypassed channel to provide fish passage throughout the entire bypassed reach to enhance anadromous fish production.

The channel modification plan shall include, but not be limited to, a description of proposed monitoring activities and the types and locations of any proposed channel modifications along with a schedule for:

(1) monitoring fish passage conditions and implementing channel modifications;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission.

If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The channel modification plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 417. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to evaluate tailrace attraction and injury or mortality at the LaGrande powerhouse to determine if a tailrace barrier is needed to prevent anadromous fish migration delay and injury or mortality.

The study plan shall include a schedule for:

(1) conducting the study;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the study; and

(3) filing the study results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the study plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed study plan. The study plan to evaluate tailrace attraction, injury or mortality shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

If the tailrace attraction and injury study indicates that substantial migration delay or fish mortality or injury is occurring at the LaGrande tailrace, the licensee shall file with the Commission, for approval, plans and a schedule for tailrace barrier construction to reduce migration delay and fish injury.

The licensee shall prepare the tailrace barrier construction plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. This filing shall include, but not be limited to:

(f) detailed design drawings of the licensee's proposed tailrace barrier, specifications of barrier features, and barrier flow velocities;

(g) documentation of consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and U.S. Fish and Wildlife Service;

(h) specific descriptions of how agency and Nisqually Tribe comments and recommendations were incorporated into the plan;

(i) agency and Nisqually Tribe comments and recommendations on the plan after the plan has been prepared and re-submitted for their review; and

(j) a schedule for constructing the tailrace barrier.

The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and make recommendations during consultation periods and before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. Tailrace barrier construction shall not begin until the licensee is notified by the Commission that the filing is approved. Upon Commission approval, the licensee shall implement the proposal, including any changes required by the Commission.

Article 418. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to conduct a gravel augmentation study in the Nisqually River from the LaGrande powerhouse to the Mashel River to determine the efficacy of long-term gravel augmentation within this reach.

The study plan shall include a schedule for:

(1) conducting the study;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the study; and

(3) filing the study results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the study plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed study plan. The gravel augmentation study plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

If the gravel augmentation study results indicate that gravel availability is limited in the reach from the LaGrande powerhouse to the Mashel River, or that spawning habitat is enhanced by gravel augmentation, the licensee shall file with the Commission, for approval, a plan for gravel augmentation to enhance and maintain spawning habitat for anadromous fish.

The gravel augmentation plan must include: (1) a description of the objectives, including measurable criteria for evaluation; (2) a map showing the location(s) of proposed gravel placements; (3) estimates of the amount of gravel needed

initially for restoration and for addition at subsequent intervals for site maintenance; (4) a description of the parameters that will be measured to determine the value of gravel placements to anadromous fish reproduction; and (5) measures used to determine the stability and life expectancy of such placements.

The plan shall include a schedule for:

(1) implementation and evaluation of the program's effectiveness in improving salmonid spawning in the project's bypassed reach;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The spawning gravel augmentation plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 419. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to augment spawning gravel in the bypassed reach to enhance and maintain spawning habitat for anadromous fish.

The gravel augmentation plan shall include: (1) a description of the objectives, including measurable criteria for evaluation; (2) a map showing the location(s) of proposed gravel placements; (3) estimates of the amount of gravel needed

initially for restoration and for addition at subsequent intervals for site maintenance; (4) a description of the parameters that will be measured to determine the value of gravel placements to anadromous fish reproduction; and (5) measures used to determine the stability and life expectancy of such placements.

The plan shall include a schedule for:

(1) implementation and evaluation of the program's effectiveness in improving salmonid spawning in the project's bypassed reach;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The spawning gravel augmentation plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 420. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to monitor dissolved oxygen (DO) concentrations in the LaGrande powerhouse tailrace.

The DO monitoring plan shall include a schedule for:

(1) implementation of the monitoring program and evaluation of the results;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The DO monitoring plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 421. Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to monitor the effects on fish resources in the LaGrande bypassed reach, of the whitewater boating flow releases required in Article 428, and of flows released into the LaGrande bypassed reach during project maintenance activities.

The fish monitoring plan shall include a schedule for:

(1) implementation of the monitoring program;

(2) consultation with the appropriate federal and state agencies and the Nisqually Tribe concerning the results of the program; and

(3) filing the results, agency and Nisqually Tribe comments, and licensee's response to agency and Nisqually Tribe comments with the Commission.

The licensee shall prepare the plan after consultation with the Nisqually Tribe, Washington Department of Fish and Wildlife, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation

of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies and Nisqually Tribe, and specific descriptions of how the plan accommodates the agencies and Nisqually Tribe's comments. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed plan. The fish monitoring plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the proposal, including any changes required by the Commission.

Article 422. Within two years of license issuance, the licensee shall acquire title in fee, or the right to use in perpetuity, at least 2,450 acres of wildlife habitat in the Weyerhaeuser, Brazier I and II, Covenant Church, Cotton Brothers, and National parcels described in Exhibit E of the application for new license filed on December 26, 1991, as amended by the filing on January 7, 1994.

If the habitat values of any of these parcels become substantially reduced from those described in Exhibit E as amended, before the licensee acquires title or rights to the parcel(s), or if the licensee is unable to acquire them, then the licensee shall, within 3 years of license issuance and after consultation with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Washington Department of Fish and Wildlife, and the Nisqually Tribe, acquire substitute lands that provide habitat values equivalent to those parcels described in Exhibit E as amended, and that also provide for no less than a total of 2,450 acres among all of the parcels. Before acquiring any substitute parcels, the licensee shall file a description of the substitute parcel(s) for Commission approval. Substitute parcel descriptions, at a minimum, shall include:

(a) maps indicating the parcel location(s) and distribution of vegetation or habitat cover types;

(b) parcel and habitat type acreages;

(c) a discussion of the vegetation and wildlife features, past land uses, proposed management measures, and costs for each substitute parcel; and,

(d) documentation of consultation with the agencies and the Nisqually tribe, including comments and recommendations

on the substitute parcels.

The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and make recommendations on substitutions before filing descriptions with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes in any substitutions. Upon Commission approval, the licensee shall acquire the substitute parcel(s) as modified by any changes required by the Commission.

Article 423. Within three years of license issuance, the licensee shall file for Commission approval a detailed wildlife management plan based on the Washington Department of Fish and Wildlife's conceptual management plan 60/ and the proposed wildlife habitat enhancement measures included in Exhibit E of the application for new license filed on December 26, 1991, as amended by the filing of January 7, 1994. A total of no less than 3,350 acres, consisting of 900 acres of existing project lands described in Exhibit E, as amended, and 2,450 acres that have been acquired under Article 423, shall be managed for wildlife.

The plan shall include but not be limited to:

(a) descriptions of the land parcels comprising the wildlife management areas, including acreages;

(b) descriptions of the wildlife habitat management prescriptions to be implemented at the project reservoirs and the wildlife lands described above;

(c) descriptions of specific goals and objectives which should include measurable habitat evaluation parameters;

(d) a plan for monitoring and evaluating the effectiveness of the measures in (b), a schedule for filing monitoring results with the Commission, and provisions for revising the plan as needed in the future; and

(e) a schedule for implementing the measures proposed in (b), consistent with Article 426 requirements to

---

60/ Letter from Curt Leigh, Mitigation Resolution Habitat Program, Washington Department of Fish and Wildlife, Olympia, Washington, March 13, 1995.

protect federally threatened wildlife species.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, the Washington Department of Fish and Wildlife, and the Nisqually Tribe. The licensee shall include with the plan documentation of consultation with the agencies and Nisqually Tribe, including their comments and recommendations. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The licensee shall amend the plan as needed to include new parcel acquisitions and substitutions. The Commission reserves the right to require changes to the plan and any amendments. The wildlife management plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 424. Within 1 year from the date of issuance of this license, the licensee shall file for Commission approval a site-specific wildlife management plan for the transmission line right-of-way. The plan shall include, but not be limited to the following:

(a) a description and inventory of existing habitats;

(b) the location of all areas under consideration for enhancement;

(c) a detailed description of site-specific enhancement measures to benefit wildlife;

(d) a description of standard operating procedures for maintenance activities;

(e) a plan for monitoring and evaluating the effectiveness of the proposed measures, including steps to be taken in the event these measures are not effective;

(f) a schedule for implementing the proposed measures, and for filing the results of the monitoring program with the Commission and the above agencies.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, the Washington Department of Fish and Wildlife, and the Nisqually Tribe. The licensee shall include with the plan documentation of consultation with the

agencies and the Nisqually Tribe, including their comments and recommendations on the completed plan after it has been prepared and provided to the agencies and the Nisqually Tribe, and specific descriptions of how the comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. The plan shall not be implemented until the Commission notifies the licensee that the plan is approved. Upon Commission approval the licensee shall implement the plan, including any changes required by the Commission.

Article 425. At least 90 days before the start of any land-disturbing activities, land-clearing activities, or habitat enhancement activities (e.g. forest stand thinning, patch cutting, snag enhancements) on project lands (including parcels described in Article 423), the licensee shall file for Commission approval a plan to protect federally listed threatened bald eagles (Haliaeetus leucocephalus), marbled murrelets (Brachyramphus marmoratus), and northern spotted owls (Strix occidentalis caurina) and their habitat. The plan shall include, but not be limited to the following.

(a) Provisions for having a professional wildlife biologist survey any project lands before any land-disturbing, forest thinning, patch cutting or snag enhancement activity occurs to identify potential bald eagle nesting, roosting, and perching trees.

(b) Measures for protecting any bald eagle nesting, roosting, or perching trees found during the site surveys described in (a) above from damage or loss.

(c) Provisions for implementing the following activity restrictions:

1. Bald eagle--Activities that produce noise above ambient levels and are within 1/4 mile (1/2 mile if in direct line of sight, 1 mile for blasting) of bald eagle nesting territories, roost sites, or winter concentration areas shall be scheduled to avoid the periods that bald eagles would be expected to occur at these locations. Bald eagle nesting season extends from January 1 through August 15 and the wintering activity period is from October 31 through March 31.

2. Marbled murrelet--Activities that produce

noise above ambient levels and are within 1/4 mile (1 mile for blasting) of occupied habitat or suitable nesting habitat that has not been surveyed shall be scheduled to avoid the nesting/fledgling period, April 1 to September 15, or conducted during the period beginning 2 hours after sunrise and ending 2 hours before sunset, if they must occur between August 6 to September 14.

3. Northern spotted owl--Activities that produce noise above ambient levels and are within 1/4 mile (1 mile for blasting) of a spotted owl activity center, shall be scheduled to avoid the nesting/fledgling period, March 1 to September 30.

(d) Provisions for monitoring project effects on these species as needed, and for evaluating implementation of the protective measures; a schedule for filing monitoring results with the Commission; and provisions for revising the plan as needed in the future.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, the Washington Department of Fish and Wildlife, and the Nisqually Tribe. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies and the Nisqually Tribe, and specific descriptions of how the comments and recommendations are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies and Nisqually Tribe to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No land-disturbing activities or terrestrial habitat enhancement measures shall begin at the project until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 426. Within six months from the date of issuance of this license, the licensee shall file with the Commission, for approval, a plan to install aviation markers on the project transmission line where it crosses the Mashel River and Ohop Creek to protect bald eagles and other birds from striking the transmission line. The plan shall include, but not be limited to, the following:

(1) the size and color of markers to be used;

(2) the spacing of markers; and

(3) a schedule for installing markers.

The licensee shall prepare the plan in accordance with guidelines set forth in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994" by the Avian Power Line Interaction Committee and after consultation with the U.S. Fish and Wildlife Service and the Washington Department of Fish and Wildlife. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 427. The conceptual plan for recreational enhancements and shoreline management filed on December 26, 1991, as section 5.6.2 through 5.7 on pages E-256 through E-269 of the application for license, section 6.4.6 on page E-280 of the application for license, plus pages 3 through 15 of the additional information filed on February 23, 1993, is approved and made part of this license. The licensee, within six months from the effective date of this license, shall file with the Commission for approval, a plan to finalize the design and schedule for constructing the facilities and implementing the measures contained in the plan.

The plan shall include, at a minimum, the following: (1) final design drawings and maps showing the location of the facilities in relation to project features; (2) signage to inform the public of the availability and location of the facilities; (3) a discussion of how the final design considers the needs of the disabled; and (4) a discussion of who will operate and maintain the facilities. The facilities shall be sited, designed, and constructed to minimize potential impacts on existing recreational uses, visual resources, and federally-listed species (see Article 425) at the project.

The plan shall be prepared after consultation with the Nisqually River Council, the National Park Service, the U.S. Fish and Wildlife Service, the Washington Interagency Committee for Outdoor Recreation, the Washington State Parks and Recreation

Commission, and Pierce County. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the consulted entities, and a specific description of how the entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No modification or enhancement activities covered by the plan shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 428. Within six months from the date of issuance of this license, the licensee shall file with the Commission, for approval a three-year plan for continued evaluation of the potential for whitewater boating in the LaGrande Canyon.

The plan shall include, but not be limited to, provisions for:

(a) Flow releases of 800 cfs and 1,000 cfs on consecutive days for six hours each day on two weekends either in mid to late November or December. Flows shall be provided either through decreases in generation, through natural spillage, or a combination of the two. Flow releases shall be planned such that ramping rates and minimum flows downstream of the LaGrande powerhouse as required by the Initial Decision Terminating Docket are maintained.

(b) Soliciting applications from boaters to participate in the test, and informing boaters of the planned release dates, and the difficulty of the whitewater run.

(c) Setting a cap on the number of boaters ultimately allowed to participate on each release date. The cap shall be a number agreed on by the consulted entities and the licensee.

(d) Allowing access to the Canyon for participants only, on the release dates at agreed upon locations, and for providing a sanitary facility near the put-in area.

(e) Briefings and signage explaining the potential hazards of the whitewater run.

(f) Access to a take-out point at the confluence of the Nisqually and Mashel rivers.

(g) Determining the daily carrying capacity of the Canyon for whitewater boating based on the results of the tests.

(h) Filing a report of the results of each year's tests, and a final report at the end of the third year that includes: (1) an estimate of the potential demand for whitewater boating in the Canyon, and (2) a proposal and cost estimate for maintaining, increasing, or decreasing the flows in item (a) during the rest of the license term.

The licensee shall develop the plan and required reports in consultation with the Washington Department of Fish and Wildlife, the Nisqually Tribe, the Washington State Parks and Recreation Commission, the Washington State University's Pack Forest, the American Whitewater Affiliation, the National Park Service, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Pierce County Fire Protection District, and the Nisqually River Council. The licensee shall include with the plan and reports documentation of consultation, copies of comments and recommendations on the completed plan and reports after they have been prepared and provided to the consulted entities, and a specific description of how the entities' comments are accommodated by the plan and reports. The licensee shall allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plans and reports with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No activities covered by the plan shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 429. The licensee, before starting any land-clearing or land-disturbing activities within the project boundaries, other than those specifically authorized in this license, including recreation developments at the projects, shall consult with the State Historic Preservation Officer (SHPO).

If the licensee discovers previously unidentified archeological or historic properties during the course of constructing or developing project works or other facilities at the projects, the licensee shall stop all land-clearing and land-disturbing activities in the vicinity of the properties and

consult with the SHPO.

In these instances, the licensee shall file for Commission approval a cultural resource management plan (plan) prepared by a qualified cultural resource specialist after having consulted with the SHPO. The plan shall include the following items:

(a) a description of each discovered property indicating whether it is listed on or eligible to be listed on the National Register of Historic Places;

(b) a description of the potential effect on each discovered property;

(c) proposed measures for avoiding or mitigating effects;

(d) documentation of the nature and extent of consultation; and

(e) a schedule for mitigating effects and conducting additional studies. The Commission reserves the right to require changes to the plan.

The licensee shall not begin land-clearing or land-disturbing activities, other than those specifically authorized in this license, or resume such activities in the vicinity of a property discovered during construction, until informed by the Commission that the requirements of this article have been fulfilled.

The Commission reserves the right to require changes to the proposed modifications or measures. Upon Commission approval, the licensee shall implement the proposed modifications or measures, including any changes required by the Commission.

Article 430. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the projects. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interest that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for

protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; and (3) embankments, bulkheads, retaining walls or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction; (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution

cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases or project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is 5 acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer (SHPO).

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the land conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to insure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

Article 501. If the licensee's project was directly benefitted by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license.

(E) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(F) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the FPA. The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Kevin P. Madden
Acting Director
Office of Hydropower Licensing

APPENDIX A

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
WATER QUALITY CERTIFICATION CONDITIONS

I. OIL AND HAZARDOUS MATERIALS SPILL PREVENTION AND CONTROL

1. An Oil and Hazardous Materials Spill Prevention, Containment, and Countermeasure Plan shall be made available to Ecology when FERC issues the license for the Nisqually Hydroelectric Project. The plan shall address all equipment and materials at the site used during operation of this project. Equipment includes the turbine/generator set and all oil-filled transformers and capacitors to serve this project.

2. Extreme care shall be taken to prevent any toxic or deleterious materials from entering state waters or the soil.

3. Visible floating oils released from the project area shall be contained and removed from the water immediately. No emulsifiers or dispersants are to be used in waters of the state without approval from the Southwest Regional Office of the Department of Ecology.

4. All land-based oil storage tanks shall be placed on an impervious surface. The petroleum storage area shall be diked to contain all the oil from the largest tank in the event of a catastrophic failure of the storage tank.

5. Fuel hoses, oil drums, etc., shall be maintained and stored properly to prevent discharges. Proper security shall be maintained to discourage vandalism.

6. In the event of a discharge of any oil or hazardous materials into state waters, or on land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible. Cleanup shall include proper disposal of any spilled material and used cleanup materials. Ecology shall be notified immediately by telephone at (206) 753-2353 (24-hour number).

7. There shall be adequate employee training for spill prevention, containment, and cleanup and a clear chain of authority and reporting procedures in case of an accidental spill.

8. The Oil Spill Prevention and Control plan shall be on-site at all times and shall be available for review by an Ecology inspector. Project employees will be familiar with procedures contained therein. Those measure identified in the plan concerning petroleum storage shall be in place.

II. INSTREAM FLOWS

1. The minimum instream flow in the Nisqually River between the LaGrande powerhouse and LaGrande dam shall be five cubic feet per second (cfs).

III. OTHER

1. There shall be no excursions beyond the water quality criteria described in Chapter 173-201-045 (2)(c).